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MOLLUSCA

COMPILED BY

A. E. SALISBURY, A.M.I.E.E.

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9. MOLLUSCA

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deposit of the lower Dnieper, **Malevannii & Yatzko**; Upper Mesozoic fresh-water Mollusca from the region of Gusin lake, Russia, **Martinson** (1); New Unionids in upper Cretaceous of Mongolia, **Martinson** (2); Methods of reproduction of marine bivalve, **Matveeva**; Mollusca in the Sarmatian of Moldavia, **Migatcheva & Sterlin**; Morphology of *Macoma baltica*, **Miloslavskaya** (1); Changes of weight in *Macoma baltica*, **Miloslavskaya** (2); Acclimatization of Black Sea mollusca in Azov sea, **Nikitin & Turpaeva**; Mollusca of Konsk horizon in Dnieper valley, Russia, **Nosovski** (1); Mollusca in Onco-phora deposits in South Ukraine, **Nosovski** (2); *Spirialis* in Meotic deposits Russia, **Poroshin**; Mollusca in coal bearing layer of the Middle Ural, **Pronin**; Acellular structure and development of muscles in *Viviparus viviparus*, **Roskin & Kirpichnikova**; New representative of the family Schistoceratidae from Turkestan, **Ruzhentzev** (1); New form belonging to the family Welleritidae of Middle Carboniferous in Ural, Russia, **Ruzhentzev** (2); Ammonites in Upper Carboniferous of Southern Ural, Tchalkovsk and Aktyubinsk Provinces, Russia, **Ruzhentzev** (3); Foraminifera in the sea deposits of Okhotsk Sea, **Saidova & Beklemishev**; Fossil mollusca in the region of Volsk, Russian Platform, **Samsonov**; Cretaceous Gastropods in Donet basin, Russia, **Savtchinskaya & Blank**; Russian Unionidae new species and varieties, **V. Shadin**; Jurassic mollusca in Donetz basin, Russia, **Strelin** (1); new and known Mollusca in Black Sea-Caspian territory, Gruzian Republic, Russia [All new forms are nomina nuda from Khobsk region, Western Gruzia], **Tchelidze**; Littoral Mollusca of Okhotsk Sea, **Ushakov**; Mollusca in Konsk horizon, Krasnovodsk Plateau, Miocene, **Vistelius & Korobkov**; Mollusca in chalk deposits of Eastern Aral, Russia, **Voskoboinikov**; Mollusca in the deposits of the lower Trans-Volga, Russia, **Vostryakov**; Lower Jurassic Mollusca of Krasnooskolsk, Russia, **Yungerman & Makridin**; Molluscs of fresh water and brackish waters of the USSR, **Zhadin** (1); Fresh and brackish-water Mollusca, **Zhadin** (2); Mollusca in Southern Bug river, Russia, **Zhuravel**; Fossil Mollusca of Sirt, Sizran and Transural, **Zhuteev**; Mollusca

in the Miocene of the Tarkhansk horizon, Russia, **Zinov'yev**.

Asia.—Arabia: Jurassic Ammonites, **W. J. Arkell**; Paleogene mollusca of Fergana and Tadzhikistan deposits, **Simakov**.

Mediterranean Islands.—Balearic Ids., **S. Jaeckel** (5).

North Africa.—Egypt: *Lymnaea stagnalis* its occurrence and contributive factors, **A. F. Abdel-Ghani**; Mesozoic pelecypods from S. Algeria, **A. Chavan**; West Morocco, **M. Gigout**; Molluscan notes, **I. Jodot**; Casablanca, a fluviatile quaternary deposit, **E. Lecointre** (1); Sudan and Schistosomiasis, **S. Mankowski**.

Turkey.—Mollusca from the lower Filyos R., **H. W. E. Crookewit**; Two species of *Lacinaria* from Zonguldak, **F. E. Loosjes** (1).

ORIENTAL REGION AND EAST INDIES

Pakistan.—A new name for a Lamellibranch, **F. E. Eames**.

Indo-China.—Mollusca new species, **E. Saurin**.

Malaysia.—Non-marine Mollusca of the Moluccan Islands of Ambon, Haruku, Saparua and Nusa Lait, **W. S. S. v. B. Jutting** (3); Indo-Australian Clausiliidae, a monograph, figs., **F. E. Loosjes** (2).

Java.—Molluscs from the Udjong Kulon Nature Reserve, **L. J. M. Butot**; Mollusca from the Udjong Kulon Nature Reserve, Java, **L. J. M. Butot**; Java, a critical revision of the freshwater bivalves figs., **W. S. S. v. B. Jutting** (2).

China.—A malacological visit, **P. H. Fischer**.

Siam.—On some non-marine species from the N.W. and S.W., **F. Haas** (2); Thailand, a new *Lymnaea* from Bangkok, **H. C. Ray** (3).

Japanese Subregion.—Lake Mokotanuma, Hokkaido, Japan—bottom fauna, **E. Asakina**; Japan, a malacological visit, **P. H. Fischer** (2); Japanese shells from Satanomisaki, **T. Habe** (4); Coast of Japan, a note on distribution, **I. Hamai** (2); Lower Cretaceous Belemnites from Japan, **T. Hanai** (4); Japan

comparison of infectivity of *Schistosoma* of *Oncomelania nosophora* and *O. formosana*, **Hunter, Ritchie & Otori**; A new Miocene *Siphonalia* from Miyazaki Prefecture, Kyushu, Japan, **J. Itoigawa**; Japanese Conchology History, **T. Kamaru**; Cretaceous Desmoceratiniae of Japan, **T. Matumoto** (2); Japanese Cretaceous Gaudryceratidae, **T. Matumoto** (3); Cretaceous Phylloceratidae of Japan figs., **T. Matumoto** (4); Japanese Tetragonitidae, **T. Matumoto** (5); Homing behaviour of Limpets [in Japanese], **Ohgushi, Miura & Kotani**; Fossils of the Kosiba formation, Japan, **K. Oyama** (2); Review of the Japanese Turridae, **K. Oyama** (3); Review of Japanese Turridae, **K. Oyama** (4); *Margaritifera margaritifera* in the Conifer beds of Ekoda, Tokyo, Japan, **H. Ozaki**; Oligocene fossils of the Poronai formation of Hokkaido and South Sakhalin, Japan, figs., **H. Takeda**; Mollusca of Ryugado Sinterhöhle, Kochi Prefecture, **H. Torii**; Tokyo, Pleistocene fossils, **H. Ujiie**; Indicator species of the Palaeogene age of the coal formation of the Ube Coalfield, **H. Yabe**.

Philippines.—A malacological visit, **P. H. Fischer** (4).

AUSTRALIAN AND POLYNESIAN REGION

Australia.—Australian Recent and Fossil Terebridae and Rissoinidae, **B. C. Cotton**; New South Wales Ordovician Nautiloids, **B. F. Glenister**; Tasmania—Nature of Intertidal Zonation, **E. R. Guiler**; N.S.W., Fossils replaced by Cassiterite, **L. J. Lawrence**; Australia, introduced Helicidae, **H. E. Quick**.

New Zealand.—A survey of the western coastal dune lakes of the North Island, New Zealand, **Cunningham & others**; New Zealand Cephalopods, **R. K. Dell**; New Zealand—The freshwater species and their varieties occurring in New Zealand figs., **R. K. Dell** (4); New Zealand—a key to the common Chitons, **R. K. Dell**; New Zealand Cephalopoda, **R. K. Dell** (6); Molluscan immigration to New Zealand during the Tertiary period, **C. A. Fleming** (1); Jurassic fossils from the Bay of Plenty, New Zealand, **C. A. Fleming** (2); New Zealand, a new Triassic Nautiloid, **B. Kummel** (3); New Zealand faunal

migrations during the Triassic and Jurassic periods, **J. Marwick** (1); Distribution in New Zealand of *Agnewia tritoniformis* (Blv.), **E. S. Richardson**; Paryphantidae of New Zealand and indication of a Cook Strait land bridge, **M. T. Te Punga**; Stewart Island, New Zealand, flora and fauna, text-map, **G. A. Usher**; Tertiary species of *Pelicaria* from East Wairarapa, New Zealand, and descriptions of two new species, **P. Vella**.

Pacific Islands.—Hawaiian Islands fossils, **Cooke & Kondo**; New Southern Polynesian *Partula*, **Crampton & Cooke**; New Caledonia Endodontidae, **A. Franc** (2); New Caledonia, a new *Diplomphalus* fig., **A. Franc** (3); New Caledonia land molluscs, **A. Franc** (4); Clipperton Island Mollusca, **L. G. Hertlein & W. K. Emerson**; Hawaiian Lymnaeidae, **B. Hubendick**; Solomon Islands freshwater molluscs, **A. Solem** (1); Solomon Islands—supplementary notes on new land mollusca, **H. Watson** (2); Philippine Islands, Diplommatiniae in the Senckenberg Museum, **A. Zilch** (1).

ETHIOPIAN REGION

East Africa.—Lake Tanganyika Gastropoda, **E. Leloup** 2; Tanganyika, *Gulella paucidens* sp. nov., **B. Verdcourt** (1); Kenya—occurrence of species of *Trachycystis*, **B. Verdcourt** (2); Some East African *Gulella*, **B. Verdcourt** (3); N.E. Tanganyika, ecology of land and freshwater Mollusca, map, **B. Verdcourt** (7); N.E. Tanganyika *Gulella* figs., **B. Verdcourt** (8).

West Africa.—Belgian Congo Mollusca affected by *Schistosoma* and *Cercaria*, **A. Fain** (5); Angola Ammonoite fossils from the Albian, **O. Haas** (1); On transmission of *Schistosoma mansoni* by *Planorbis* in the Congo, **J. Schwetz** (2); Belgian Congo Planorbidae, **J. Schwetz** (7).

Central Africa.—Africa and Schistosomiasis, map, **J. M. Amberson**; Central African Mollusca as carriers of Schistosomes, **B. Bisseru**; African malacological notes, **A. Chavan**; African living and fossil Viviparidae, **E. Darteville**; Lake Albert and molluscan transmitters of *Schistosoma mansoni*, **A. Fain** (2); Tropical Africa species from Monts Baynezans and Tarraonaji, **E.**

Fischer-Piette (2); The Veronicellidae, **L. Forcart** (1).

Madagascar.—Jurassic fossils, **M. Collignon**; Madagascar and the Bilharziasis problem, **J. Gaud** (2); Madagascar, Three new species of *Pisidium*, **J. G. J. Kuiper** (2).

Mauritius.—Schistosomiasis, **S. G. Cowper**.

South Africa.—Some North Rhodesia freshwater snails, **C. R. Boettger** (1); Cape Hargklip shell beds their origin, map, **P. P. Gatehouse**.

NEARCTIC REGION

Greenland.—Tertiary fossils, East Greenland, **M. Y. Hassan**.

Alaska.—Sitka, Alaska—Pelecypoda, **E. B. Hunter**; Sitka Sound collecting area, **G. E. Lemke**.

Canada.—Quebec—Ordovician fossils from Waswanipi Lake, **T. H. Clark & D. A. W. Blake**; S.W. British Columbia, The Mollusca of the Pleistocene, **W. M. Dreycot**; Alberta, a new Cambrian *Hyolithes*, **B. F. Howell** (2); *Congeria leucophaeata* (Conrad) in the Hudson River, **M. K. Jacobson** (2); London, Ontario, a colony of *Cepaea nemoralis*, **W. W. Judd**; Lake Saint Jean, Champlain and Post-Pleistocene fauna, *Laverdiere & Mailloux*; Amethyst Lake, Jasper, Alberta, its Limnology, **D. S. Rawson** (1); Great Slave Lake bottom fauna, **D. S. Rawson** (2); Mollusca from the Tertiary Kishenchu formation of S.E. British Columbia, **L. S. Russell** (1); Land shells of Cypress Hill, Saskatchewan, **L. S. Russell** (2); Fossils of the Middle Ordovician beds of Saguenay Valley, Quebec, **G. W. Sinclair**.

North Eastern United States.—Virginia, range and habitat of *Polymesoda caroliniana*, **Andrews & Cook**; Maryland Pleistocene fauna of Wailes Bluff and Langleys Bluff, **S. F. Blake**; Virginia, occurrence of *Mesodon andrewsae normalis* Pils., **P. R. Burch**; Hanover Co., Virginia, Mollusca (abstract note), **P. R. & J. B. Burch**; Michigan, U.S.A., Mollusca of Sodon Lake, Oakland County, occurrence of shells in the peat and marl sediments, **S. A. Cain & others**; Oldham Co., Kentucky, fossils of the Whitewater formation, **J. Conkin**; Mollusca of temporary pools and ponds of Illinois

and Ohio, **R. W. Dexter**; Douglas Lake, Michigan, interdepression benthic communities, **F. E. Eggleton**; New York, List of Lower Clinton fossils, **D. W. Fisher**; New York, a new Lower Devonian Cephalopod, **R. H. Flower** (2); New Jersey, occurrence of *Discus rotundatus*, **S. D. Freed**; York Co., Pennsylvania, revised list of Mollusca, **Heilman & MacMillan**; Virginia, new species of *Philomycus*, **L. Hubricht** (1); Zonitidae of Pittsylvania Co., Virginia, **L. Hubricht** (4); *Ventridens suppressus* (Say) in Staten Id., New York, **M. K. Jacobson** (1); Michigan—ecological notes on *Stenotrema hirsutum* (Say), **C. B. Lee** (1); Cleveland, Ohio, some faunules from the Wisconsinan Loess, **A. B. Leonard**; Trias life in the Connecticut Valley, **R. S. Lull**; Freshwater mussels used by Illinois Indians, **M. R. Matteson** (2); a new *Haplotrema* from Illinois, **G. R. Webb** (8).

South Eastern United States.—Land snails of the genus *Stenotrema* in Alabama, **A. F. Archer**; U.S.A. Ocala limestone bivalves, Eocene, **G. D. Harris**; Land snails of the southern Atlantic coastal plain, **L. Hubrecht** (2); Locality of *Mesodon andrewsae normalis* (Pils.) locality Bent Creek, N.C., **L. Hubrecht** (3); Texas Cretaceous Nautiloids figs., **B. Kummel** (1); Oklahoma land snails, a checklist, **L. Lutz**; A preliminary survey of land mollusca of Alachua Co., Florida, **E. H. Nickelson**; Florida currents and control of vertical distribution of zooplankton, **Moore, Owre, Jones & Dow**; On *Viviparus multilineatus* Say and its forms in the Florida region, **J. P. E. Morrison** (3); Alachuan County, Fla., Mollusca, description of vegetational communities and frequency of occurrence of species, **E. H. Nickelson**; Carolina and Florida, a new Tertiary Glycymerid, **D. Nicol** (4); Louisiana high temperature and low rainfall effect on oyster production, **H. M. Owen** (1); Land snails of the Duke Forest, N. Carolina, **A. S. Pearse** (1); Louisiana, Biological notes on *Fossaria parva* (Lea), **B. E. Prince**; Dallas County, Texas, Ecological notes on the Freshwater Mussels, **L. B. Read & R. H. Oliver**; Differences in bivalve fauna of Ocean Springs, Mississippi and Grand Isle, Louisiana, **S. W. Rosso**; Three new forms of *Liguus fasciatus* (Müll.),

A. de la Torre (1); Oklahoma, additional land snail records to check-lists, **I. E. Wallen**; new Succiniidae from Kansas and Oklahoma, **G. R. Webb** (6); Miami, Florida, and vanishing and extinct colonies of *Liguus fasciatus*, **F. R. Young**.

Western United States.—*Oreohelix*, San Diego Co., California, **J. L. Baily, jr.**; Puerto Penasco, Sonora, molluscan notes, **S. S. Berry** (1); San Diego Co., California, a new *Helminthoglypta*, **S. S. Berry** (2); Arizona, Permian fossils, **H. Chronic**; Washington, D.C., occurrence of *Pomatiopsis lapidaria*, **W. B. DeWitt**; California, a Pleistocene fauna from San Diego Co., **Emerson & Addicott**; Arizona, a new *Sonorella*, **W. O. Gregg** (1); Arizona, two new snails *Oreohelix* and *Ashmunella*, **W. O. Gregg** (2); Utah, some Sphaeriidae, **Harrington & Roscoe**; California, a new Pleistocene *Diodora*, **G. P. Kanakoff**; Kansas, a new *Succinea*, **C. B. Lea** (2); Idaho, *Magnipelta* a new genus of Arionidae, figs., **H. A. Pilsbry** (2); Meade Co., Kansas, shells from an interglacial deposit, **H. v. d. Schalie** (2); Arizona, shells from the Montezuma Castle National monument, Yanapai Co., **A. G. Smith**; California Pliocene and Pleistocene extinct and locally extinct genera, **W. P. Woodring**; Cretaceous, species of *Pyrgulifera* from the Bear River formation, **T.-C. Yen** (2); Shaw Point, Oneida Lake, N.Y.; S.E. end of Bear Lake, Utah; Great Falls on the Potomac River, Maryland; Forest Stream, Denmark; Trusker formation, Nevada; Tulare formation, California; Kootenai formation, Montana; Fort Union formation, S. Montana; Freshwater molluscan assemblages and their ecological interpretations, **T. C. Yen** (3).

CENTRAL AMERICAN REGION

Distribution *Polymesoda caroliniana* (Bosc) from Vera Cruz, Mexico to Warwick River, N.C., **J. D. Andrews** (2).

Mexico.—Permian fossils, **Cooper & others**; N.W. Chihuahua, a new species of *Amnicola* figs., **R. J. Drake**; Mexico Cambrian, a probably new *Helcionella*, **C. Lochman**; a new *Strobilops* from Sinaloa, **J. P. E. Morrison** (2); Land Mollusca from Nuevo Leon, Mexico,

H. A. Pilsbry (4); Northern Mexico Mollusca, **H. A. Pilsbry** (5).

Panama.—A new *Promenetus*, **D. W. Taylor**.

Cuba.—Some new species and subspecies from East Cuba, **C. G. Aguayo**; Baracoa, Land Mollusca, **Aguayo & Jaume** (1); New land Mollusca from Cuba, **Aguayo & Jaume** (2); Eastern Cuba, a new *Chondropoma* and *Cepolis*, **Aguayo & Quiñones**; Cuban Cerionidae, **Aguayo & Roig**; Cuba, a new *Helicina*, **Aguayo & de la Torre**; Eastern Cuba, some new species of *Cerion*, **Clench & Aguayo** (1); New Cuban *Cerion*, **Clench & Aguayo**; Cuban tree snails, **J. W. Lippincott**; Cuba, new *Cerion* and *Chondropoma*, **A. de la Torre** (2).

Tobago.—Two new subspecies of *Voluta musica*, **A. H. Verrill** (2).

Puerto Rico.—*Schistosoma* infection of *Tropicorbis*, **R. M. McQuay, Jr.**; Puerto Rico, Land and Fresh-water Mollusca, **H. v. d. Schalie** (1); Puerto Rico—occurrence of *Yoldia* (*Adrana*) *protrracta* Dell, living, figs., **Warmke & Abbott**.

Bermuda.—A new *Strobilos*, **J. P. E. Morrison**.

Yucatan.—On non-marine Mollusca of Yucatan, text-figs., **H. W. Harry**.

SOUTH AMERICAN REGION

Colombia.—Road from Cartagena to Barranquilla, lake Cienaga de Lurnaco, a new *Pomacea*, **Pilsbry & Olsson** (1).

Venezuela.—New species of *Nenia* from Perija region, **C. S. Arias**.

Ecuador.—Subfossil Mollusca of Peu de Santa Elena, Ecuador, **R. Hoffstetter**; S.W. Ecuador, Miocene, **J. G. Marks**; Pleistocene Mollusca, **R. Rivera**.

Brazil.—Paraná, List of Mollusca, **J. J. Bigarella**; Mollusca from Ilha Grande, Rio de Janeiro, Brazil, **F. Haas** (1); Paraná, some Devonian fossils, **R. Maack**; Three new Opistobranchia, **E. Marcus** (2).

Chile.—New Planorbidae, **W. A. Biese**.

Peru.—Late Triassic gastropods from Central Peru, **O. Haas** (2); Vaginulidae, **O. Kraus** (1) A new genus and species from the Trias, **Nicol & Allen**; *Vertigo ventri-*

cosa as intermediate host of *Hasstilesia*, **W. B. Rowan**; New species of Land-snails, **A. Zilch** (2).

ANTARCTIC REGION

Alexander I. Land, Lower Cretaceous, **L. R. Cox**.

Graham Land.—Upper Cretaceous cephalopods, **L. F. Spath**.

(β) **Marine**

ARCTIC

U.S.S.R..—Loricata, **A. M. Yakovleva** (1); (2).

NORTH TEMPERATE

Baltic.—Differences in physiological features of mussels from the Baltic and Barents Sea, **Belyaev & Tchugunova**.

Eastern North Atlantic.—Clyde Sea Area and epifauna of deep-water muds, **J. A. Allen** (1); Dogger Bank change in composition of bottom fauna, **L. Birkett**; North Sea, notes on *Dentalium vulgare* and *D. entalis* on the Dutch coast, **A. Bloklander**; Milford Haven and *Crepidula fornicata*, **Cole and Baird**; *Ommastrephes sagittatus* on the East Coast of Scotland, **A. S. Gillespie**; Dutch Waddenzee, occurrence of *Alderia modesta* (Lovén) and *Limapontia depressa* Ald. & Hand., **G. D. Hartog & C. Swennen**; Dutch Waddenzee and occurrence of *Alderia modesta* and *Limapontia depressa*, **Hartog & Swennen**; Plymouth, the biomass of the bottom fauna in the English Channel, **N. A. Holme**; North Sea Prosobranchs, **S. Jaekel** (7); North Sea Lamellibranch, **S. Jaekel** (8); Dutch coastal records, **J. A. W. Lucas**; Scottish seas, some rare Mollusca recently found, **A. C. Stephen**; On Plankton from the Bay of Banyuls, France, **T. Thomopoulos**; Dutch Waddensee and ecology of distribution of *Cardium* and *Mytilus* and source of their food supply, **J. Verwey** (1); Rivers Roach and Crouch, production and setting of oyster larvae, **G. D. Waugh**.

Western North Atlantic.—A new Rissoid from Maryland, fig., **P. Bartsch** (2); Mississippi Sound and 'Louisiana Marsh' Oyster bed and the effect on them by the Bonnet Carré Spillway, **G. Gunter** (2); Bahamas, another specimen of *Fastigiella carinata* Rve., **G. F. Kline**; Biscayne Bay, Florida, notes on

Littorina angulifera rates of growth, **R. E. Lenderking**; Western Atlantic, a new Glycymerid, **D. Nicol** (3); Eleuthera, Bahamas and *Fastigiella carinata* Rve., **H. A. Pilsbry** (1); Floridian Volutidae materials for a revision, **Pilsbry & Olsson** (2); Narragansett Bay, growth and abundance of *Venus mercenaria* and *Callocardia morrhuanus*, table, **D. M. Pratt**; Western Atlantic and *Scaeurgus unicirrus*, **G. L. Voss** (1).

Gulf of Mexico.—A new *Niso* from between Mississippi delta and Cedar Keys in 111 fms. on mud bottom, **P. Bartsch** (1); Notes on some marine shells and description of a new *Conus*, **Clench & Pulley**; Oysters of the Gulf of Mexico and neighbouring seas, **G. Gunter** (1); N.W. portion of the Gulf of Mexico with reference to the invertebrate fauna, **J. W. Hedgpeth**; Gulf of Mexico, *Conus rainesae* sp. nov., **T. L. McGinty**; São Sebastião a new *Pseudovermis*, **E. do B.-R. Marcus** (1); Texas, a new *Chione*, **T. E. Pulley** (2); Cayman Islands, Oxford University Expedition, **A. E. Salisbury** (3); *Murex bicolor* in Floridian waters, **M. M. Teare** (2); Florida Keys, a new Myopsid Squid figs., **G. L. Voss** (2).

Mediterranean.—Egypt Pteropoda and Heteropoda, **C. Beets**; Akaba, Jordan Cypraeidae, **R. J. Griffiths**; Food values of the Adriatic *Ostrea edulis*, **M. Krvaric**.

Eastern Pacific.—New West Coast American marine Mollusca, **S. S. Berry** (3); West Mexico, a new *Actaeae*, **Hertlein & Strong**; An illustrated key to the gastropod genera of west North America, **A. M. Keen & J. C. Pearson**.

Western Pacific.—Japan Sea, a new species of *Miamira*, **K. Baba**; Sea of Japan, vertical distribution of animal plankton, **K. Furuhashi**; Spatial distribution of *Meretrix lusoria* and *Mactra veneriformis* in a natural 'seed bed' in Buzen Sea, Japan, **Furukawa & Suzuki**; Japanese Fissurellidae, **T. Habe** (2); New Japanese marine shells, figs., **T. Habe** (3); Twelve new species of Japanese shells, **T. Habe** (3); Japanese species of Lacunidae, **T. Habe** (5); Occurrence of *Recluzia montrouzieri* Brazier near Seto, Japan, **Habe & Fokioka**; Hachijo Island insular shelf and neighbouring banks and their bottom characters, **Hatai, K., Niino, H.**

& Kotaka, T.; Japanese *Nuttallia* figs., **T. Kira**; Illustrated Catalogue of Japanese Shells, **T. Kuroda** (1); Japanese Rapidae, **T. Kuroda** (2); New Japanese marine gastropods, **T. Kuroda** (3); New genera and species of Japanese gastropods, **T. Kuroda** (2); The species of Japanese *Trophon*, **T. Kuroda** (4); Matsushima Bay, note on the Seed-oyster, **J. Oizumi**; Japanese Turridae, a review of the species, **K. Oyama** (3); Survey and ecology of Pangui Bay area, Leyti, Mindoro, Sorsogon, Samar, **M. V. Pangilinan**; Japanese Seas, 3729 spp. of moll. exclusive of Scaphopoda, 2·3% Chitons, 74·4% Gastropoda, 20% Pelecypoda and 3·3% Cephalopoda, **S. Taki**; Tanabe Bay, Japan, a new form of Littorinid capsule, **Tokioka & Habe**.

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Eastern Atlantic.—Cape Verde Islands, Lists in text, **A. S. Torres & J. M. P. Soares**. Morocco and Senegal opisthobranchs, **A. Pruvot-Fol**; Portuguese Guinea (W. Af.) marine Mollusca, **J. M. Braga** (1); Portuguese Guinea, notes on marine Mollusca, **J. M. Braga** (2).

Red Sea.—*Murex*, **M. Taylor**.

Indian Ocean.—Marine plankton of coastal waters of Calicut, **P. C. George**; Mauritius, a new *Montacuta* figs., **H. C. Ray** (1); Indian Ocean, some new deep-sea molluscs, **H. C. Ray** (2); Malabar coast occurrences on inshore sea bottom, **E. Seshappa**.

Central Pacific.—Shells of Kwajalein Atoll, Marshall Islands, figs., **Dietrich & Morris**; Samoa, a new Prosobranch family genus and species, **B. Hubendick** (4); Prince of Wales Island, investigation on *Haliotis kamtschatkana* figs., **R. Livingstone**; Fauna of coral atoll of Raroia, Tuamotu Archipelago, **N. D. Newell & others**; New Caledonia, Nudibranchs, **J. Risbec** (3); Marine shells of the Solomon Islands, **A. Solem** (1).

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South Eastern Atlantic.—S. Africa, a new *Isognomon*, **H. S. Koch**; Some new West African marine shells, **M. Nickles** (1).

South Pacific etc.—New marine Mollusca of Cook Strait, New Zealand, **R. K. Dell** (3); Minute bivalves of N.S. Wales, **C. F. Laseron**; Western Australia, occurrence of *Haliotis sanguinea* Hanley, **J. H. Macpherson** (1); Victoria, a new species of *Myadora*, **J. H. Macpherson** (3); A systematic list of the marine Mollusca of Victoria, **Macpherson & Chapple**; Milford Sound, N.Z., a new Lucinid, **J. Marwick** (2); Great Barrier Reef, Notes on some of its shells, **J. Mollison**.

(B) Geological

Quaternary.—Quaternary type fossils and figured specimens in the Melbourne Museum, **E. D. Gill**; Quaternary Unionidae of Casablanca, **P. Jodot**; Post-pleistocene of Lake Saint Jean, Canada, **Laverdière & Mailloux**; Island of Veleko Ratno Holocene Mollusca, **J. Petrak** (1); Certain Quaternary and Pliocene freshwater assemblages and their ecological interpretation, **T.-C. Yen** (3).

Pleistocene.—Pleistocene fauna of Wailes Bluff and Langleys Bluff, Maryland, **S. F. Blake**; Mollusca of the Pleistocene or Ice Age of south-west British Columbia, **W. M. Draycot**; Pleistocene S.W. San Diego Co., California, **Emerson & Addicott**; A new Pleistocene *Kellyella* from Moeshima, Japan, **T. Habe** (3); Upper Pleistocene, a new *Diodora* of California, **G. P. Kanakoff**; Pleistocene fossils in Cleveland, Ohio, **A. B. Leonard**; Faunule substage of Wisconsinian age Tazewellian substage, **Leonard**; Tokyo Pleistocene *Margaritifera margaritifera*, **H. Ozaki**; Pleistocene Mollusca of Ecuador, **R. Rivera**; Pleistocene shells from an interglacial deposit, Meade Co., Kansas, **H. v. d. Schalie** (2); Mid-European, **U. Steusloff** (1); Pleistocene fossils from Tokyo, **H. Ujiiie**; Pliocene and Pleistocene extinct and locally extinct genera of California, **W. P. Woodring**.

Tertiary.—Tertiary Bullidae, Austria, **W. Berger**; Tertiary species of Rissoidae, Rissoidae; Terebridae of Australia, **B. C. Cotton**; Early Tertiary marine faunas and continental drifts, **J. W. Durham**; Tertiary immigration to New Zealand, **C. A. Fleming** (1); Greenland Tertiary fossils, **M. Y. Hassan**; A new Tertiary Glycymerid from Carolina and Florida,

D. Nicol (4); Tertiary Mollusca from the Kishenchen formation, S.E. British Columbia, **L. S. Russell** (1); New Zealand species of *Pelicaria* from the Tertiary of East Wairarapa, **P. Vella**.

Pliocene.—Derived marine Pliocene fossils **Blanc & Segre**; Certain Pliocene to Quaternary assemblages and their ecological interpretations, **T.-C. Yen** (3).

Miocene.—Middle Miocene Turridae of Hungary, **M. Csepereghyné** (1); Middle Miocene fossil of Salgótarján, **M. I. Csepereghyné** (2); A new Upper Miocene *Siphonalia* from Kyushu, Japan, **J. Itoigawa**; Miocene Ecuador, **J. G. Marks**; Miocene *Hydrobia* in sediments of R. Oslava, **M. Pokorný**.

Oligocene.—Fossils of the Peronai formation Oligocene of Hokkaido and South Sakhalin Japan, **H. Takeda**; English Oligocene Veneridae, **W. E. Tremlett** (1) & (2).

Eocene.—An Eocene Lamellibranch, **F. E. Eames**; Eocene bivalves from the Ocala Limestone, U.S.A., **G. D. Harris**; Middle Eocene, Esztergen, **E. Szöts**; English Eocene Veneridae, **W. E. Tremlett** (1) & (2); English Eocene *Siphonalia* and *Pseudoneptunaea*, **A. Wrigley**.

Paleocene.—Mollusca of the Flagstaff Formation, Central Utah, **A. La Rocque**; Mollusca Paleocene of Western Siberia, **Lipman**.

Mesozoic.—South Algeria, new Mesozoic pelecypods, **Chavan & Cornet**.

Cretaceous.—Synopsis of new species of Spain, **J. R. Bataller**; A Lower Cretaceous *Nucyclana* from S. Algeria, **A. Chavan**; Cretaceous stratigraphical names of formations in the western interior of the United States, **Cobban & Reeside**; Lower Cretaceous, Alexander Island, **L. R. Cox**; Cretaceous, East Greenland, **D. T. Donovan**; Lower Senonian *Tissotia* of Djebel Maadid, Algeria, **C. W. Drooger**; Cretaceous immigration to New Zealand, **C. A. Fleming** (1); Garganian, Douvilleiceratian, Albian fossils of the Maritime Alps, **J. Fromaget**; Upper Cretaceous fossils from the neighbourhood of Casablanca, **M. Gigout**; Mollusca in Pre-Black-Sea depression, Cretaceous, Russia, **Gorbenko**; Albian Ammonite fossils from Angola, **O. Haas** (1); Japan, two new Lower Cretaceous

Belemnites, **T. Hanai** (4); Lower Cretaceous Nautiloids from Texas, figs., **B. Kummel** (1); Japanese Desmoceratinæ from the Cretaceous figs., **T. Matumoto** (2); Some Cretaceous Gaudryceratidae of Japan, **T. Matumoto** (3); Japan a note on the Cretaceous Phylloceratidae, **T. Matumoto** (4); A new form of Cretaceous Ammonoid from Japan, **T. Matumoto** (5); Bugey, (Ain) Sequanian ammonite proving the age of coralline formations, **M. Pelletier**; Upper Cretaceous Angola, **J. V. L. Rennie**; Upper Cretaceous Cephalopods from Graham Land, **L. F. Spath**; Campanian fossils from Bélesta (Ariège), **J. Villatte**; Mollusca in lower Cretaceous of Leue depression, Russia, **Voronetz**; Upper Cretaceous fossils from near Sage Junction, Wyoming, **T.-C. Yen** (1).

Jurassic.—Jurassic Ammonites from Jebel Tuwaiq, Arabia, **W. J. Arkell**; Oxfordian, Argovian and Glyptician fossils in Jura Salinois, **A. Caire**; On some Jurassic fossils of Madagascar, **M. Collignon**; Jurassic, E. Greenland, **D. T. Donovan**; Fossils from the Bathonian of the Ardennes figs., **J. C. Fischer**; Jurassic *Pseudauccella* from the Bay of Plenty, N.Z., **C. R. Fleming** (2); Jurassic, correlation of North American formations except Canada, Indicator species in text, **R. W. Imlay**; Jurassic migrations in New Zealand, **J. Marwick** (1); Jurassic of Northern Alsace, **P. L. Mauberge** (1); Jurassic Mollusca in Donbas, Russia, **Strelin** (2).

Lias.—Upper Lias fossils from Huntingdonshire, **J. L. Gilbert**; **R. Mouterde**.

Trias.—Upper Trias, Algeria, **S. Defretin & others**; Triassic Mollusca from Central Peru, **O. Haas** (2); Trias, *Ceratites nodosus* Schloth fig., **E. Kuhn-Schnyder**; Lower Trias Salt Range Nautiloids, **B. Kummel** (2); Trias N.Z., a new Nautiloid, **B. Kummel** (3); Connecticut Valley Trias life, **R. S. Lull**; Triassic migrations in New Zealand, **J. Marwick** (1); Upper Trias *Isopristes* gen. nov. from Peru, **Nicol & Allen**; Poland, **E. Passendorfer** (2).

Permian.—Fossils from the Kaibab formation of Walnut Canyon, Arizona, **H. Chronic**.

Carboniferous.—Upper Carboniferous relative growth of Anthracositiidae,

R. M. C. Eagar (1); Upper Carboniferous, **R. M. C. Eagar** (2); Some Carboniferous fossils in Co. Dublin and Meath, **J. E. Scanlon**; Carboniferous Nautiloids of Great Britain (*Orthoceras gigantea* and allied forms), **T. S. Turner** (2).

Devonian.—A Lower Devonian (Helderbergian) Cyrtocoanic Cephalopod, **R. H. Flower** (2); Devonian Mollusca of Prebaltic, Liepinsh; Devonian fossils from Paraná, **R. Maack**; Devonian of the Spanish Sahara, **T. R. Mellado**.

Silurian.—Lower Clinton fossils from western New York, **D. W. Fisher**; New York, a new Conularid, **B. F. Howell**.

Ordovician.—Fossils from Waswanipi Lake, Quebec, **T. H. Clark & D. A. W. Blake**; Ordovician Nautiloids from New South Wales, **B. F. Glenister**; Quebec Middle Ordovician fossils, **G. W. Sinclair**.

Cambrian.—Lower Cambrian Hyolithes from Alberta, **B. F. Howell** (2); A Cambrian *Helcionella* sp. ? Mexico, **C. Lochman**.

III.—SYSTEMATIC INDEX

N.B.—FULL REFERENCES ARE GIVEN ONLY IN THE CASE OF A NEW GENUS, SPECIES OR VARIETY. IN OTHER CASES REFERENCE SHOULD BE MADE TO THE LIST OF TITLES TO THE PAPER BY THE AUTHOR WHOSE NAME IS GIVEN IN THE SHORT REFERENCE IN THE SYSTEMATIC LIST, AND UNDER WHICH, IN THE LIST OF TITLES THE FULL REFERENCE WILL BE FOUND. WHERE FULL REFERENCE IS GIVEN IN THE SYSTEMATIC PART THE VOLUME NUMBER IS GIVEN IN small clarendon.

Note.—The arrangement here used follows in general that of Thiele's *Handbuch*. The most important differences are that Epitonacea and Pyramidellacea are placed immediately preceding Muricacea in order of grouping and the families Triviidae and Eratoidae are placed in Lamellariacea.

Where more than one page is given in a reference, the one in roman type

is where the new name is first mentioned and the one in *italic* is where the gen. sp. or var. is actually described.

Polyplacophora

Chitons—a key to the common species of New Zealand, **R. K. Dell** (5); Loricata of the U.S.S.R., **A. M. Yakovleva** (1); Polyplacophora bioluminescence, chapter viii, **E. N. Harvey**.

CHITONACEA

Amicula gurjanovae p. 85 N. Pacific, S. Japan and Okhotsk seas.—*A. rosea* p. 86 Okhotsk sea, Sakhalin: spp. nov., **A. M. Yakovleva** Tabl. anal. Faune U.R.S.S. 45 1952 p. 86.

†*Archinacellidae fam. nov.* for *Archinacella* Ulrich & Scofield 1897 and ? *Ptychopeltis* Perner 1903, **J. B. Knight** Smithson misc. Coll. 117 13 1952 p. 47.

Callistochiton incurvatus near Pernambuco type in Brit. Mus. p. 9 f. 6, 7; *C. indicus* Peros Banhos Archipelago p. 13 f. 9, 10 type in Brit. Mus. spp. nov., **E. Leloup** Bull. Mus. Hist. nat. Belg. 29 30 1953.—*C. adenensis* Sm., *C. antiquus* Rve., var. *meridionalis* Ashby; *C. crassicostatus* Pils.; *C. decoratus* Pils.; *C. granifer* Hull; *C. incurvatus* Leloup; *C. indicus* Leloup; *C. palmulatus* Pils.; *C. pulchellus* (Gray) anatomic characteristics, figs., **E. Leloup** (1).

Chiton chemical contents of certain species, **Gabe & Prentant** (4).

Chactopleura reesi sp. nov. Jacksons Point, Grand Cayman, **A. E. Salisbury** Proc. Malac. Soc. London 30 1/3 1953 p. 41 pl. 7.

Gurjanovillia derjugini p. 98; Okhotsk sea.—*G. andrijaschevi* N. Japan sea p. 99.—*G. kobjakovae* N. Okhotsk sea p. 100.—*G. lindbergi* S. Okhotsk sea: spp. nov. p. 101, **A. M. Yakovleva** Tabl. anal. Faune U.R.S.S. 45 1952.

Ischnochiton (Lepidozona) berryanus Leloup 1941, a synonym of *I. (L.) nipponicus* Berry, 1918, **P. Kaas** Basteria 17 4 1953 p. 55.

Lophyrochiton gen. nov., **A. M. Yakovleva** Tabl. anal. Faune U.R.S.S. 45 1952 p. 102.

Mopalia seta spec. nov. Japan sea, **A. M. Yakovleva** Tabl. anal. Faune U.R.S.S. 45 1952 p. 77.

Placiphorella uschakovi sp. nov. Okhotsk sea, **A. M. Yakovleva** Tabl. anal. Faune U.R.S.S. 45 1952 p. 81.

Tonicella zotini spec. nov. N. Pacific, Japan & Okhotsk seas p. 70.—*T. granulata* spec. nov. Northern Pacific, Japan and Okhotsk seas, p. 69, **A. M. Yakovleva** Tabl. anal. Faune U.R.S.S. 45 1952.

Gastropoda

Gastropoda. Gastropods—a key to some families of African fauna, **Alves & Clarke**; Gastropoda relation between pre- and post-anaerobic oxygen consumption and oxygen tension in some freshwater species, **Von Brand & Mehlman**; Gastropoda bioluminescence, chapter viii, **E. N. Harvey**; Gastropod genera of west North America an illustrated key, **A. M. Keen & J. C. Pearson**; Gastropoda and the bearing of primitive fossils on Classification, **J. B. Knight**; Gastropoda fossils, replacement by Cassiterite at Emmaville, N.S.W., **L. J. Lawrence**; Gastropoda of Sitka, Alaska, **G. E. Lemke**; Gastropoda of fresh water, **H. Mellanby**; Gastropoda of the freshwater in the United States, **R. W. Pennak**; Gastropoda of the Great Slave Lake bottom fauna, **D. S. Rawson** (2); Gastropoda examination of shell structure by X-rays, **G. Sabatier**; Land Gastropoda of the Italian littoral, **C. F. Sacchi** (2); Gastropoda of Ruderalstellen, **W. Tischler**.

STREPTONEURA

Aspidobranchiata

Rhipidoglossa

BELLEROPHONTACEA

†*Bellerophon deflectus* sp. nov. Permian Arizona, **H. Chronic** Bull. geol. Soc. Amer. 63 2 1951 p. 111 pl. 1 f. 2a-3b.

†*Bellerophon mohri* a diagnostic species of the Whitewater formation of S. Ohio, **J. Conkin**.

†*Euphenites aequisulcatus* sp. nov. Permian Arizona, **H. Chronic** Bull. soc. Geol. Amer. 63 2 1951 p. 113 pl. 1 f. 1 a-c.

HALIOTIDACEA

†*Ananias franciscanus* p. 114 pl. 2 f. 5a-b; *A. gibber* p. 115 pl. 2 f. 10; spp. nov. Permian Arizona, H. Chronic Bull. Soc. Geol. Amer. 63 2 1951.

†*Brochidium vreasense* sp. nov. Mesozoic, late Trias, Peru, O. Haas Bull. Amer. Mus. nat. Hist. 101 1953 p. 33 pl. 2 f. 14, 15, 19-21.

Diodora semilunata sp. nov. Okinawa, Ryukyu Japan, T. Kuroda Ill. Catal. Jap. Shells No. 23 Ap. 1953 p. 184.—†*D. constantiae* sp. nov. Palos Verdes sand Upper Pleistocene California, G. P. Kanakoff Bull. S. Calif. Acad. Sci. 52 2 1953 p. 67 pl. 12 f. A-C.

Emarginula fujitai p. 33 pl. ii f. 32, 33 = *E. foveolata* Fujita non Schepman: *E. hataii* p. 34 pl. ii f. 13, 20 = *E. foveolata* Nomura & Hatai non Schepman, nomen. nov.; *E. regia* p. 36 pl. ii f. 30, 31; *E. hosoyai* p. 37; *E. teramachii* p. 38 pl. ii f. 14, 23; *E. tosaensis* p. 39; *E. compta* p. 41 pl. ii f. 11, 12, *E. okinawaensis* p. 44 pl. ii f. 5, 6; spp. nov. Japan, T. Habe Publ. Seto mar. biol. Lab. 3 1 1953.

†*Euconospira* ? *cryptolirata* sp. nov. Permian Arizona, H. Chronic Bull. Soc. Geol. Amer. 63 2 1951 p. 116 pl. 2 f. 11, 12.

†*Euomphalus kaibabensis* sp. nov. Permian Arizona, H. Chronic Bull. Soc. Geol. Amer. 63 2 1951 p. 126 pl. 4 f. 15-16c.

†*Glabrocingulum laeviliratum* p. 117 pl. 2 f. 7-9b; *G. ? coronatum* p. 118 pl. 3 f. 1a-3 spp. nov. Permian Arizona, H. Chronic Bull. Soc. Geol. Amer. 63 2 1951.

Haliotis tuberculata L. citric acid content, P. V. Creac'h (1, 2).—*H. kamtschatkana* investigation off Prince of Wales Island, R. Livingstone; *H. sanguinea* Hanley occurrence at Cowaramup Bay, South of Yallingup, Western Australia, J. H. Macpherson (1).—*H. iris* the "pawa" from Stewart Island N.Z., G. A. Usher.

†*Kittlidiscus* nom. nov. for *Schizodiscus* Kittl 1891 (non Clarke 1888)—type *Pleurotomaria plana* Klipstein 1943, O. Haas Bull. Amer. Mus. nat. Hist. 101 1953 p. 59 footnote.

Laevi marginula membranacea gen. et sp. nov. Okinawa Ryukyu Japan, T. Kuroda Ill. Catal. Jap. Shells No. 23 Ap. 1953 p. 183.

Monodilepas monilifera cookiana subsp. nov. 40° 52' S 174° 46' E 62 fms., R. K. Dell Trans. roy. Soc. N.Z. 81 1 1953 p. 149 text-fig. B f. 13-15, pl. 16 f. 3.—*Monodilepas* in New Zealand, *M. monilifera* skinneri Finlay; *M. otagoensis* Finlay; *M. diemenensis* Finlay; *M. monilifera monilifera* (Hutton) figs., R. K. Dell (2).

†*Mourlonia* ? *cancellata* sp. nov. Permian Arizona, H. Chronic Bull. Soc. Geol. Amer. 63 2 1951 p. 119 pl. 3 f. 4a-c.

†*Murchisonia geminocarinata* sp. nov. Permian Arizona, H. Chronic Bull. Soc. Geol. Amer. 63 2 1951 p. 123 pl. 4 f. 12-14.

†*Pareuryalox* gen. nov. Pleurotomariidae genotype *P. perornata* sp. nov. Mesozoic, late Trias, Peru, O. Haas Bull. Amer. Mus. nat. Hist. 101 1953 p. ix, 24 pl. 1, f. 30, 31, 42, 43.

†*Pernotrochus* gen. nov. Pleurotomariidae genotype *Pernotrochus arizonensis* sp. nov. Permian Arizona, H. Chronic Bull. Soc. Geol. Amer. 63 2 1951 p. 120 pl. 3 f. 5a-7.

†*Phymatifer peruvianus* sp. nov. Mesozoic, late Trias, Peru, O. Haas Bull. Amer. Mus. nat. Hist. 101 1953 p. 32 pl. 2 f. 5, 6, 12, 13.

†*Platyworthenia* gen. nov. Pleurotomariidae genotype *Platyworthenia delicata* sp. nov. Permian Arizona, H. Chronic Bull. Soc. Geol. Amer. 63 2 1951 p. 121 pl. 3 f. 8a-9.

†? *Ptychomphalina discoidea* sp. nov. Mesozoic, late Trias, Peru, O. Haas Bull. Amer. Mus. nat. Hist. 101 1953 p. 27 pl. 1 f. 46, 47, 54-58.

†*Retispira undulata* sp. nov. Permian Arizona, H. Chronic Bull. Soc. Geol. Amer. 63 2 1951 p. 113 pl. 2 f. 1a, b.

†*Stegocoelia quadricostata* sp. nov. Permian Arizona, H. Chronic Bull. Soc. Geol. Amer. 63 2 1951 p. 126 pl. 4 f. 10.

Tugalina radiata gen. et sp. nov. Okinawa, Ryukyu Japan, T. Kuroda Ill. Catal. Jap. Shells No. 23 Ap. 1953 p. 183.

†*Worthenia corrugata* sp. nov. Permian, Arizona, H. Chronic Bull. Soc. Geol. Amer. 63 2 1951 p. 122 pl. 4 f. 1a-c.

Prosobranchiata

Prosobranchiata—transference of sperm from male to female, figs., V. Fretter (2); Prosobranch Gastropoda on the radulae, Gabe & Prentant (3); Prosobranchiata North Sea, S. Jaeckel (7); Prosobranchiata—studies on freshwater species, H. Schäfer (2); Prosobranchiata—filter mechanism and filtration, figs., B. Werner (2).

Docoglossa

PATELLACEA

Acmaea the vertical zonation, J. A. Shotwell.

Acmaea turveri sp. nov. Punta Colorado near Guaymas Mexico, Hertlein & Strong Bull. S. Calif. Acad. Sci. 50 3 1951 p. 152 pl. 51 f. 1-3.

†*Acmaea actina elevata* var. nov. Tertiary East Greenland, M. Y. Hassan Medd. Grönland 111 5 1953 p. 31 pl. C f. 7, 8.

†*Helcionella* sp. indet. Cambrian Mexico, C. Lochman Smithson misc. Coll. 119 1 1952 p. 114 pl. 28 f. 23-25.

†*Hypseloconidae* fam. nov. for *Hypseloconus* Berkey 1898 and *Pollicina* Holzapfel 1895, J. B. Knight Smithson. misc. Coll. 117 13 1952 p. 47.

Patella vulgata L. citric acid content, P. V. Creac'h (1, 2).—*P. vulgata* purification of arxisulphatase, Dodgson & Spencer.—*P. vulgata* chemical contents, J. Etienne-Petitfils.—*P. vulgata, depressa, athletica, aspera*, biological notes from the south coast of England, R. G. Evans.—*P. caerulea* growth and yolk formation, F. Ranzoli (2).—*Patella* oogenesis, F. Ranzoli (1).—*Patella*, lack of common open rock limpets noted in parts of coast of N. Florida and the Carolinas, T. A. & A. Stephenson.

Patelloidea saccharina lanx (Reeve) homing behaviour, Ohgushi, Miura & Kotani.

TROCHACEA

Adamsenida [?] *galea* sp. nov. Trochidae Tosa Bay, Shikoku Japan “may

belong to the genus *Adamsenida* . . . allied to *Solariellopsis pulchra* Schapman,” T. Habe Venus 17 3 1953 pp. 133 & 142 text-figs. 3, 4.

†*Amberleya monilis* sp. nov. Sequanian Roi-Chat., Houdard & Delpey Bull. Soc. Sci. Hist. nat. Yonne 94 1948 p. 33 text-fig. 9 pl. 1 f. 15.

†*Anomphalus biconcavus* p. 78, pl. 5 f. 11, 12, 18-20; ? *A. amorphus* p. 79 pl. 5 f. 23-30 spp. nov. Mesozoic late Trias, Peru, O. Haas Bull. Amer. Mus. nat. Hist. 101 1953.

†*Calliostoma* (*Eocalliostoma*) *concaicum* sp. nov. Mesozoic, late Trias, Peru, O. Haas Bull. Amer. Mus. nat. Hist. 101 1953 p. 99, pl. 6, f. 60, 62-66.

†*Chartroniella callistomoides* p. 24 pl. 1 f. 20; *C. (Rothpletzella) bicarinata* p. 24 text-fig. 11 pl. 1 f. 21 spp. nov. Roi-Chat., Houdard & Delpey Bull. Soc. Sci. Hist. nat. Yonne 94 1948.

Chartroniella Cossmann emend. with spp. *pacifica* (Jaworski) and *wortheniae-formis* Cox Mesozoic Peru, O. Haas Bull. Amer. Mus. nat. Hist. 101 1953 pp. ix, 80.

Crosseola cookiana sp. nov. Cook Strait New Zealand, R. K. Dell Trans. Roy. Soc. N. Z. 79 3-4 1952 p. 415 pl. 85 f. 4.

†*Eocalliostoma* subgen. nov. of *Calliostoma* Swainson subgenotype *Calliostoma interruptum* Cox 1949, O. Haas Bull. Amer. Mus. nat. Hist. 101 1953 pp. x, 99.

†*Eosolariella* subgen. nov. of *Solariella* Wood pp. x, 87 sub-genotype *Margarita turbinea* von Ammon 1893, O. Haas Bull. Amer. Mus. nat. Hist. 101 1953.

†*Eotrochus* ? *liratus* sp. nov. Permian Arizona, H. Chronic Bull. Soc. Geol. Amer. 63 2 1951 p. 129 pl. 4 f. 7a-8.

†*Eucycloscala pascoensis* p. 102 pl. 6 f. 61-69, 72-76 sp. nov.; *E. körneri* p. 103 new name [sp. nov.] = Körner's sp. *E. cf. elegans* from the Trias Peru, O. Haas Bull. Amer. Mus. Nat. Hist. 101 1953.

†*Eucyclus denticulatus* sp. nov. Mesozoic, late Trias Peru, O. Haas Bull. Amer. Mus. nat. Hist. 101 1953 p. 84 pl. 5 f. 49-53, 56-61.

†*Glyptospira* gen. nov. p. 127 Trochonematidae genotype *Glyptospira cristulata* pp. 127, 128 sp. nov. Permian

Arizona, **H.** Chronic Bull. Soc. Geol. Amer. 63 2 1951 pl. 4 f. 4a-6b.

†*Guidonia* De Stefani emend. pp. ix, 56; *G. peruviana* p. 65, pl. 4 f. 1-3, 5-9, 11-18, 20, 32, 42; *G. planetecta* p. 67, pl. 4 f. 19, 21-31, 33-35, 37, 38, 44, 45; *G. intermedia* p. 69, pl. 4 f. 36, 39-41, 43, 46-48, 50, 52, 53, 58-60; *G. parvula* p. 71 pl. 4, f. 49, 51, 54-57, 61-75, 79, 80; *G. bifasciata* p. 74 pl. 4 f. 76-78, 81-85; pl. 5 f. 1-3, 7, 8, 14, 15, 21, 22 spp. nov. Mesozoic late Trias Peru, **O. Haas** Bull. Amer. Mus. nat. Hist. 101 1953.

†*Hesperocirrinae* subfam. nov. of Cirridae for *Hesperocirrus* and *Sororcula* genn. nov. [q.v.], **O. Haas** Bull. Amer. Mus. nat. Hist. 101 1953 pp. ix, 39.

†*Hesperocirrus* gen. nov. pp. ix, 41 of Cirridae genotype *H. robustornatus* sp. nov. p. 42 pl. 2 f. 35-37, 41, 43, 44, 47-49, 51-53; gen. includes *Hamusina triasica* Cox; *H. striatus* p. 48 pl. 2 f. 42, 46, 54, 56, 57-60.—*H. modestus* p. 49, pl. 3, f. 16-18, 23, 24, 29, 37-39; spp. nov. Mesozoic late Trias, Peru, **O. Haas** Bull. Amer. Mus. nat. Hist. 101 1953.

†*Homalopoma* (*Boutillieria*) new species, **O. Haas** Bull. Amer. Mus. Nat. Hist. 101 1953 p. 107.

†*Leptothyra* ? *campaniense* sp. nov. Campanian France, **J. Villatte** Bull. Soc. Hist. nat. Toulouse 87 3-4 1952 pp. 317, 321 pl. ii f. 8-9.

†*Proconulus discinctus* sp. nov. Bathonian, Ardennes, **J. C. Fischer** J. Conchyliol. Paris 93 1 1953 p. 10 pl. 1 f. 7, 8.

†*Rothpletzella*, **Houdard** & **Delpey**.

Seguenzia hosyu sp. nov. (ex Kuroda MS.) Trochidae Tosa Bay, Shikoku, Japan, **T. Habe** Venus 17 3 1953 pp. 134 & 142 text-fig. 5.

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N. hologoroides p. 166 pl. 10 f. 8, 10-28, 30, 33, 35.—*N. ninacacana* p. 169, pl. 10 f. 31, 34, 38-42, 44-47, 49-55, 57; *N. distincta* p. 172 pl. 10 f. 43, 48, 56, 58-67 pl. 11, f. 1-6, 9; spp. nov. Mesozoic late Trias, Peru, **O. Haas** Bull. Amer. Mus. Nat. Hist. 101 1953.

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D. (S.) elisabethae anchistoma subsp. nov. (Mlldff. nom. nud.) Guimiras, Philippines p. 30 pl. 9 f. 137; *D. (S.) elisabethae laticosta* subsp. nov. (Mlldff. nom. nud.) Catanduanes Philippines p. 30 pl. 9 f. 136; *D. (S.) irregularis subaequalis* subsp. nov. (= *D. subregularis* Mlldff. nom. nud. non Mousson 1870) Cebu, p. 31, pl. 11 f. 158, 'Type in Senckenberg Museum,' A. Zilch Arch. Molluskenk. 82 1/3 1953.—*D. (Sinica) micropleuris bisiligensis* subsp. nov. (Mlldff. nom. nud.) Mindanao p. 33 pl. 10 f. 144; *D. (S.) paxillus hunanensis* nom. nov. (= *D. latecostata* Gredl. 1887 non Mousson 1870) Hunan; *D. (S.) quadrasiana* nom. nov. (= *quadrasi* Mlldff. 1893 non 1887) I. of Leyte, p. 35 pl. 9, f. 129; *D. (S.) synchonpleuris* sp. nov. (Mlldff. nom. nud.) Bohol p. 36 pl. 10 f. 147; *D. (S.) ventrosula* sp. nov. (Quad. & Mlldff. nom. nud.) Bohol, p. 38 pl. 10 f. 145; *D. (Metadiancta) submicronata* nom. nov. (= *murcronata* G-Aust. non Schm. Boettgr.); *D. (Moussonia) hirsuta* sp. nov. (Fulton MS.) I. Buru p. 39, pl. 13 f. 197, 'Types in Senckenberg Museum,' A. Zilch Arch. Molluskenk. 82 1/3 1953.

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†*Paludina* (*Viviparus*) *diluviana* of

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†*Heterospira simulatrix* sp. nov. Mesozoic late Trias Peru, O. Haas Bull. Amer. Mus. Nat. Hist. 101 1953 p. 180 pl. 11 f. 13–16.

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Blanfordia simplex experiments on *Schistosoma* infection, Hunter III & Abbott.

Cingula fulgida diagram of genital duct, V. Fretter (2).

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†*Sagia* gen. nov. Amnicolidae genotype *S. physoides* sp. nov. pp. 346, 354 pl. 1 f. 10 with *S. elongata* pp. 346, 355 pl. 1 f. 11; *S. amnicoloides* pp. 346, 355 pl. 1 f. 12, *S. globosa* pp. 346, 355 pl. 1 f. 12 spp. nov. Upper Cretaceous Wyoming, T. C. Yen Amer. J. Sci. 250 5 1952.

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Tutuilanidae fam. nov. Rissoacea, **B. Hubendick** Occ. Pap. Bishop Mus. 20 18 1952 pp. 301, 304.

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†*Cryptaulax rhabdocolpoides* p. 248, pl. 16 f. 48-50, 52-54, 56-59, *C. tilarnioccensis* p. 250 pl. 16 f. 60-71; spp. nov. Mesozoic late Trias Peru, **O. Haas** Bull. Amer. Mus. Nat. Hist. 101 1953.

†*Dejanira bullata* sp. nov. Campanian France, **J. Villatte** Bull. Soc. Hist. nat. Toulouse 87 3-4 1952 pp. 317, 327 pl. ii f. 1-4.

Fastigiella carinata Rve. from Powell's Point, Eleuthera Bahamas, **G. F. Kline**. —*F. carinata* Rve. at Eleuthera, Bahamas, **H. A. Pilsbry** (1).

Io variation in a population during fifty years, **Lutz & Weese**.

†*Kittlistylus* gen. nov. of Procerithiidae genotype *Turritella flexuosa* Münster, **O. Haas** Bull. Amer. Mus. Nat. Hist. 101 1953 pp. xi, 243, 244 pl. 16 f. 28, 36-39, 41.

†*Kittlistylus alter* sp. nov., **O. Haas** Bull. Amer. Mus. Nat. Hist. 101 1953 p. 246 pl. 16 f. 42, 45, 46.

Lemintina [? = *Serpuctorbis*] *imbriata* feeding habits, **T. Ino**.

Melania blistri sp. nov. Coromandel coast of India, **H. C. Ray** Rec. Indian Mus. 50 1953 p. 112 pl. 1 f. 1-6, 1a-6a.

†*Melania* ? *mengaudi* sp. nov. Campanian France, **J. Villatte** Bull. Soc.

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Melaniidae, a preliminary note on the cytology: abstract, **J. Jacobs**.

†*Melanopsis belestensis* sp. nov. Campanian France, **J. Villatte** Bull. Soc. Hist. nat. Toulouse 87 3-4 1952 pp. 317, 329 pl. ii f. 16-21.

†*Orthonema* ? *striatonodosum* sp. nov. Permian Arizona, **H. Chronic** Bull. Soc. geol. Amer. 63 2 1951 p. 134 pl. 5 f. 13a-14.

†*Paracerithium tambosolense* p. 225, pl. 15 f. 25, 33-39; *P. turritellare* p. 227 pl. 15 f. 32, 40-47; *P. porrectum* p. 228 pl. 15 f. 48-53, 56; *P. virstriatum* p. 230 pl. 15 f. 57-64, 69, 70, 73-75; spp. nov. Mesozoic late Trias Peru, **O. Haas** Bull. Amer. Mus. Nat. Hist. 101 1953.

Parastrophia asturiana de Folin occurrence and identity, plate, **B. S. Kisch**.

Plotiopsis australis Australia fig., **D. F. McMichael**.

Potadomoides gen. nov. Melaniidae, *P. pelseneeri* sp. nov. Lake Tanganyika, **E. Leloup** Result. sci. Explor. Hydrobiol. Lac Tanganyika (1946-47) 3 4 1953 pp. 7, 102.

Potamides (*Pirenella* ?) *astrei* sp. nov. Campanian France, **J. Villatte** Bull. Soc. Hist. nat. Toulouse 87 3-4 1952 pp. 317, 330 pl. ii f. 22-27.

†*Potamides* (*Uchauxia*) of *phillipsi* Leymerie in the Aptian and Neocomian, fig., **Badoux & Trümppy**.

†*Promathilda* (*Promathilda*) *subnodosoides* p. 187 pl. 12 f. 1-4, 8-16, 18-20, 22, 23, 37; *P. (P.) alia* p. 190 pl. 12 f. 17, 21, 24, 26, 27, 31-34; *P. (Teretrina) bolinoides* p. 192 pl. 12 f. 28-30, 38-50, 52; *P. (T.) intermedia* p. 197 pl. 12 f. 55-60, 62, 66-70, 73; *P. (T.) obtusa* p. 199 pl. 12 f. 64, 71, 72 pl. 13 f. 1-9, 11-18, 26; *P. (T.) eucycloides* p. 201 pl. 13, f. 10, 19-21, 27, 29; *P. (T.) tilarnioccensis* p. 204 pl. 13 f. 22-25, 28, 31, 41; *P. (T.) terebraformis* p. 205, pl. 13 f. 30, 32-40, 42, 53; spp. nov.—*Promathilda* (*Clathrobaculus*) *subulata* p. 208 pl. 13 f. 43-52, 59, 69; *P. (C.) gracillima* p. 209 pl. 13 f. 55-58, 64, 65; spp. nov. Mesozoic late Trias Peru, **O. Haas** Bull. Amer. Mus. Nat. Hist. 101 1953.

†*Protofusus peruvianus* p. 213 pl. 14 f. 1-8, 10-12, 16, 19, 20; *P. gracilis* p. 215, pl. 14 f. 9, 13-15, 17, 18, 21-29; *P. delicatulus* p. 217, pl. 14 f. 30-52, 55, 63; *P. pyramidalis* p. 219 pl. 14, f. 53, 54, 56-62, 64-75 pl. 15 f. 5, 6, 15; *P. transitorius* p. 222 pl. 15 f. 4, 7-9, 13, 14, 16-24, 28, 29: spp. nov. Mesozoic, late Trias Peru, O. Haas Bull. Amer. Mus. Nat. Hist. 101 1953.

†*Pyrgulifera* species of the Bear River formation, T. C. Yen (2).

†*Rhabdocolpus subulatus* p. 234 pl. 15 f. 76, 77, 80, 81, 85-88; *R. praeco* p. 237 pl. 16, f. 1-11, 13, 14, 27; *R. runsicostatus* p. 241 pl. 16 f. 12, 15-23, 25, 26, 33, 34; *R. emaciatus* p. 242 pl. 16 f. 24, 29, 31, 32, 35, 43, 44 spp. nov. Mesozoic late Trias Peru, O. Haas Bull. Amer. Mus. Nat. Hist. 101 1953.

Semisulcospira spp. and infection by Cercaria in Japan, J. Ito.

Stormsia gen. nov. Melaniidae for *Reymondia minima* E. A. Smith 1908, E. Leloup Rés. sci. Explor. Hydrobiol. Lac Tanganyika (1946-47) 3 4 1953 pp. 7, 217 pl. ix f. 3, 57GG, 72U, 100, 111 in text.

Thiara granifera an intermediate host of *Paragonimus* figs., R. T. Abbott (2).

†*Trochocerithium wadanum* (Yokoyama) Oligocene Japan, H. Takeda Coal Geol. Studies No. 3, Geol. Sec. Hokkaido Assoc. Coal Mining 1953 p. 51 pl. iv f. 7, 11-13, H. Takeda.

Turbanilla elegantissima copulatory organs, sperm sac, figs., V. Fretter (2).

Turritella diagram of genital duct, V. Fretter (2).

Turritella orthosymmetra sp. nov. off Pebble Beach, Santa Catalina Id., California, S. S. Berry Tr. S. Diego Soc. N.H. 11 16 1953 p. 412 pl. 28 f. 5.—*T. communis*, operculum figs. Radula, J. E. Morton (2).

†*Turritella poronaiensis* sp. nov. Oligocene, Japan, H. Takeda Coal Geology studies No. 3, Geol. Sec. Hokkaido Assoc. Coal Mining Technology 1953 p. 50 pl. iv f. 6; pl. v f. 1-3, 5, 6.

Vermetus (*Thylacodes*) *fuscatus* (Sowerby) type in British Museum = *Serpula colubrina* "Bolten" [= Röding], G. L. Wilkins (2); *Vermetus*

(*Siphonium*) *maximus* (Sowerby) type in British Museum, G. L. Wilkins (2).

Vermicularia spirata, anatomy figs. Radula, J. E. Morton (2).

AMALTHEACEA

Hipponix antiquatus appearance and habits, C. M. Yonge (3).

CALYPTRAEACEA

Crepidula fornicate (L.) variation figs., C. R. Boettger (2); *C. fornicate* in Milford Haven, Cole and Baird.

Calyptraea sinensis on foot glands, J. Touraine.

Calyptraeidae—morphologic, histologic and function of filtration organs, figs., B. Werner (1).

STROMBACEA

†*Aporrhais* (*Tessarolax*) *antarctica* sp. nov. Lower Cretaceous Alexander I Land, L. R. Cox F.I.D.S. sci. Rep. No. 4 1953 p. 6 pl. 2 f. 9-11.

†*Aporrhais* (*Cuphosolenus*), O. Haas (2).

†*Dicroloma* (*Perissoptera*) *o'donnelli* sp. nov. Upper Cretaceous, Angola, J. V. L. Rennie Mem. Jta Miss. geogr. colon. Geol. 1 1945 pp. 10, 54, 119, pl. iv f. 6.

†*Jurassiphorus icaunensis* sp. nov. Sequanian, Houdard & Delpey Bull. Soc. Sci. Hist. nat. Yonne 94 1948 p. 17 text-fig. 1 pl. 1 f. 2.

†*Jurassiphorus triadicus* sp. nov. Mesozoic late Trias Peru, O. Haas Bull. Amer. Mus. Nat. Hist. 101 1953 p. 252 pl. 16 f. 30, 40, 47.

†*Pelicaria mangasparia* pp. 35, 40 pl. 4 f. 8-10; *P. rotunda* pp. 35, 41 pl. 4 f. 5 and 7 spp. nov. Tertiary, East Wairarapa New Zealand, P. Vella Trans. roy. Soc. N.Z. 81 1 1953.—*Pelicaria* Tertiary species Wairarapa, New Zealand figs., P. Vella.

Rostellaria martini Marrat, Cebu Holotype figd., W. K. Ford.

Strombus galeatus Swainson type in British Museum, G. L. Wilkins (2).

†*Strombus bubonius* Lmk. from Tiranian of Gallipoli, plate, G. Mirigliano.

Xenophora konoi sp. nov. between Kyushu and Shikoku Japan, T. Kuroda

Ill. Catal. Jap. Shells No. 23 Ap. 1953
p. 176 f. 3-5.

Xenophoridae of Japan, T. Habe (1).

HETEROPODA

Pterotracheidae neuro-secretion, M. Gabe.

NATICACEA

†*Ampullina paquieri* sp. nov. Campanian France, J. Villatte Bull. Soc. Hist. nat. Toulouse 87 3-4 1952 pp. 317, 318 pl. 1 f. 1, 4.

†*Ampullospira rumignyense* p. 20 pl. ii f. 13-15; *A. coxi* p. 20 pl. ii f. 16-18 Bathonian, Ardennes, J. C. Fischer J. Conchyliol. Paris 93 1 1953.

Elachisina holotype of type species figured, Keen & Pearson.

†*Gyrodes semistriatus* sp. nov. Sequanian Roi-Chat, Houdard & Delpey Bull. Soc. Sci. Hist. nat. Yonne 94 1948 p. 21 text-fig. 5 pl. 1 f. 7.

†*Jedria* subgen. nov. of *Naticopsis* subgenotype *Naticopsis meeki* Knight 1933, E. L. Yoehelson J. Wash. Acad. Sci. 43 3 1953 p. 65.

Natica (*Tectonatica*) *micra* sp. nov. Ilha Grande, Rio de Janeiro Brazil, F. Haas Fieldiana Zool. 34 1953 p. 206 text-fig. 41.—*Natica*, on the drilling mechanism, H. J. Turner jr.—*Natica maculosa* and method of boring into *Venerupis semidecussata*, Y. Tanaka (2).

Naticopsis (*Jedria* q.v.) subgen. nov. and discussion on conception of *Naticopsis*, E. L. Yoehelson.

†*Naticopsis kaibabensis* sp. nov. Permian Arizona, H. Chronic Bull. Soc. Geol. Amer. 63 2 1951 p. 133 pl. 5 f. 10a-11b.

CYPRAEACEA

Cypraeidae of Akaba, Jordan, R. J. Griffiths.

Trivia europaea on foot glands, J. Touraine.

TONNACEA

Cymatium tuberosum on the egg clutch, C. Boulaire.

Distorsio mcgintyi nom. nov. for *Distorsio floridana* Olsson and McGinty 1951 Naut. 65 (1) p. 27 pl. 1 f. 5, 6, 9 not Gardner 1947 U.S. Geol. Surv.

Prof. Ppr. 142-H p. 532 pl. 53 f. 8, Emerson & Puffer Proc. biol. Soc. Wash. 66 1953 p. 101.

Distorsio [pars *Distortrix* Lmk.] *reticulata* Röding Indo-Pacific confused with *Distorsio* 'clathrata' (Lamarck 1822). This West Indian *Distorsio* should date from Lamarck's figures and name (1816) and not from his description of 1822 figs., E. L. Puffer.—*Distorsio* Catalogue of synonymies, supraspecific units and species, Emerson & Puffer.

Personella Conrad 1865 a catalogue of species (with *Distortio*), Emerson & Puffer.

Septa nodifera Lk. citric acid content, P. V. Creach (1, 2).

PTENOGLOSSA

EPITONIACEA

†*Acirsa* (*Plesioacirsa* ?) *egitoensis* sp. nov. Upper Cretaceous, Angola, J. V. L. Rennie Mem. jta Misc. geogr. colon. Geol. 1 1945 pp. 10, 49, 114 pl. iii f. 52-54.

Clathrus clathrus genital organs figs., V. Fretter (2).

†*Confusiscala angolensis* sp. nov. Upper Cretaceous Angola, J. V. L. Rennie Mem. jta Miss. geogr. colon. Geol. 1 1945 pp. 10, 47, 113, pl. iii f. 50, 51.

Döderleinia berycoides ecological studies in S.W. Japan Sea, O. Kibesaki.

Janthina globosa biology and anatomy figs., J. Risbec (2).

AGLOSSA

PYRAMIDELLACEA

†*Aclisina* ? *bisulcata* sp. nov. Permian, Arizona, H. Chronic Bull. Soc. Geol. Amer. 63 2 1951 p. 132 pl. 5 f. 5a-6.

†*Coelostylinia cylindrata* p. 132 pl. 7, f. 79, 80, 88-91, 99, 100; *C. inexpectata* p. 134 pl. 7, f. 86, 87, 93-98; spp. nov. Mesozoic, late Trias, Peru, O. Haas Bull. Amer. Mus. Nat. Hist. 101 1953.

Cythnia holotype of type species figured, Keen & Pearson.

Enteroxenos bouvieri sp. nov. Entoconchidae, New Caledonia, J. Risbec Bull. Soc. zool. Fr. 78 1953 p. 120 text-figs.

Entocolax chiridotae sp. nov. body cavity of *Chiridota pellucida* Vahl. Japan Sea, La Pérouse Straits, O. A. Skarlato Zool. Zh. Moscow 30 4 1951 p. 358 4 figs.

Niso hendersoni sp. nov. from 111 fms. between the Mississippi delta and Cedar Keys on mud bottom, P. Bartsch Nautilus Philad. 67 2 1953 p. 38 pl. 5 f. 4.

†*Onchochilus insolitus* sp. nov. Permian Arizona, H. Chronic Bull. Soc. Geol. Amer. 63 2 1951 p. 132 pl. 5 f. 7.

†*Pseudomelanix salinasensis* pp. 9, 46, 112, pl. iii f. 47, 48; *P. egitoensis* pp. 10, 45, 110 pl. iii f. 45, 46: spp. nov. Upper Cretaceous Angola, J. V. L. Rennie Mem. jta. Miss. geogr. colon. Geol. 1 1945.

†*Pustulifer peruvianus* sp. nov. Mesozoic, Late Trias Peru, O. Haas Bull. Amer. Mus. Nat. Hist. 101 1953 p. 148 pl. 9 f. 20-24.

Pyramidella Lamarck 1799 proposed validation of the name, Rehder & Forcart.

†*Ramina andina* sp. nov. Mesozoic, late Trias Peru, O. Haas Bull. Amer. Mus. Nat. Hist. 101 1953 p. 110 pl. 5 f. 78-81, 86-89, 93, 96-98.

†*Spirostylus peruvianus* sp. nov. Mesozoic, late Trias Peru, O. Haas Bull. Amer. Mus. Nat. Hist. 101 1953 p. 154 pl. 9 f. 11-17.

Stilifer pisum sp. nov. Stiliferidae, Tosa Bay Shikoku, Japan, T. Habe Venus 17 3 1953 pp. 134 & 143 text-fig. 20.

LOXONEMATACEA

†*Omphaloptycha jaworskii* nom. nov. p. 137 pl. 8 f. 1-28, 31: *O. jenkei* p. 142 pl. 8 f. 29, 32-34, 38, 39, 42; *O. speciosa* p. 143, pl. 8 f. 30, 35-37, 40, 41, 45-50, 53, 54, 59, 62, 65; ? *O. cacuana* p. 146, pl. 8 f. 43, 44, 51, 52, 57; spp. nov. Mesozoic, late Trias, Peru, O. Haas Bull. Amer. Mus. Nat. Hist. 101 1953.

†*Protostylus* Mansuy 1914 genotype here fixed as *P. lantenoisi* Mansuy, R. L. Batten J. Wash. Acad. Sci. 42 11 1952.

STENOGLOSSA

(α) RACHIGLOSSA

MURICACEA

Acanthina calcar Martyn a turritulate example figs., F. Riveros-Zuñiga (1).

Agnewia tritoniformis (Blainville) its distribution in New Zealand figs. text-map and list of records, E. S. Richardson.—*A. kempae* Powell 1934 figs., E. S. Richardson.

Columbariidae of Japan, T. Habe (1).—Columbariidae of Japan, T. Kuroda (1).

Colus Humphrey 1797 type *Murex colus* L. Mus. Calon. 34; The genus discussed, B. C. Cotton.

Coralliochia fimbriata (R. Adams) Concholepas (Coralliochia) Ad. P.Z.S. 20 1852 93 Loo Choo (Ryukyu or Okinawa group), T. Kuroda Venus 17 3 1953 pp. 117, 128.

Coralliofusus acus gen. et sp. nov. Rapidae, off Tosa Japan, T. Kuroda p. 119; *C. (Genkaimurex) subgen. nov. varicosa* sp. nov. Genkai Sea p. 120 figs. 7, 8, T. Kuroda Venus 17 3 1953.

Coralliphila (Genkaimurex) varicosa subgen. et sp. nov. (Rapidae) Genkai Sea off Fukuoka, Kyushu, Japan, ? 25 fms., T. Kuroda Venus 17 3 1953 pp. 117, 120, 127 text-figs. 7, 8.

Cytharomorula vexillum gen. et sp. nov. Muricidae the genus resembles *Ergalatax* Iredale, Rec. Aust. Mus. 18 (4) 1931 231, off Kii and Tosa deep bottom, T. Kuroda Venus 17 3 1953 pp. 183, 184, 191 text-figs. 11.

Genkaimurex subgen. nov. of *Coralliofusus* [q.v.] subgenotype *varicosa* sp. nov. Genkai Sea, Japan, T. Kuroda Venus 17 3 1953 p. 120 figs. 7, 8.

Leptoconchus noumeae sp. nov. Coralliphilidae in coral blocks, Noumea, J. Risbec Bull. Soc. zool. Fr. 78 1953 p. 117 text-figs.

Murex trunculus biochemical research on the egg capsule, Dulsetto & Labruto; *M. tribulus* from W. shores of Great Bitter Lake S. of Fayid, M. Taylor; *M. bicolor* Val. in Florida, M. M. Teare (2); *M. briskasi* sp. nov. Dominica, B.W.I., A. H. Verilli Mins. Conch. Club S. Calif. 127 May-June 1953 p. 2 text-fig.—*M. regius* Swainson type in British Museum, G. L. Wilkins (2).

Nucella, diagram of genital duct, V. Fretter (2).—*Nucella lapillus* on foot glands, J. Touraine.

Ocinebra crispissima sp. nov. 33 fms. off Isthmus Cove, St. Catalina Id., S. S. Berry Trans. S. Diego Soc. N.H. 11 16 1953 p. 414 pl. 28 f. 6.—*O. erinacea* on foot glands, J. Touraine.

Pleuroploca eucla sp. nov. West Australia 60 miles W. of Eucla 72 fms., B. C. Cotton Trans. roy. Soc. S. Aust. 75 1952 p. 52 pl. iv f. 1-3.

Polytropa a discussion on the generic name and species, E. P. Chace (1).

Rhizochilus teramachii sp. nov. sea adjacent to Shikoku, Pacific side Japan off Ashizuri-misaki, T. Kuroda Venus 17 3 1953 pp. 117, 118, 125 text-figs. 1, 2.

Takia gen. nov. Pacific side of Japan with *Murex incensis* Sav. as type, T. Kuroda Venus 17 4 1953 pp. 179, 190 text-figs. 6, 7, 10.

Trophon deliciatus S.E. of Ishinomaki, east coast of Honshu 146 m. fig. 2; *T. polycyma* W. of Izu Peninsula, Suruga Gulf 188 m. fig. 1; *T. crystallinus* off Miyako east coast of Honshu, 177 m. figs. 3, 4; spp. nov. Japan, T. Kuroda Venus 17 4 1953.

Trophonopsis delicatus p. 186 text-fig. 2, S.E. of Ishino-maki east coast of Honshu; *T. polycyma* p. 187 text-fig. 1, W. of Izu Peninsula, Suruga Gulf, Japan; *T. crystallinus* p. 188 text-figs. 3, 4, off Miyako, east coast of Honshu 177 m. spp. nov., T. Kuroda Venus 17 4 1953.

BUCCINACEA

†*Ancistrolepis* p. 11, *Ancistrolepis* p. 56 & plate *japonicus* sp. nov. Oligocene, Japan, H. Takeda Coal Geol. Studies No. 3, Geol. Sec. Hokkaido Assoc. Coal Mining Technology 1953 p. 56, pl. i f. 1, 3, 5-7.

Babylonia japonica Reeve age determination based on operculum, and economic uses, Kubo & Kondo.

Buccinum undatum on foot glands, J. Touraine.

Busycon canaliculatum and *carica* selection of prey and methods of penetration of bivalves, M. R. Carriker.—*Busycon* Röding and its subgeneric nomenclature, W. K. Emerson (3).

Ilynassa eggs, the mesoderm question, C. Clement (1).—*Ilynassa* ova experiments, A. C. Clement (2).

Mitrella kanamaruana sp. nov. off Tosa, Pacific side of Japan, T. Kuroda Venus 17 4 1953 pp. 179, 182 text-figs. 12, 13.

†*Molopophorus kusiroensis* sp. nov. Oligocene, Japan, H. Takeda Coal Geol. Studies No. 3 Geol. Sec. Hokkaido Assoc. Coal Mining Technology 1953 p. 57 pl. iv f. 5, 9, pl. v f. 4, 14.

Nassa reticulata on foot glands, J. Touraine.

Nassarius (Schizopyga) rhineres sp. nov. 40 fms. off Moss Landing, Monterey Bay, California, S. S. Berry Trans. S. Diego Soc. N.H. 11 16 1953 p. 415 pl. 28 f. 7.

Neptunea arthritica Bernardi spawning, M. Miyawaki.

†*Neptunea ezoana* p. 52 pl. ii f. 1, 3, 6; *N. modestoidea* p. 53 pl. iii f. 1-7 pl. v f. 8; *N. dispar* p. 55 pl. 1, f. 2, 4, 8-12; spp. nov. Oligocene, Japan, H. Takeda Coal Geol. Studies No. 3 Geol. Sec. Hokkaido Assoc. Coal Mining Technology 1953.

Pisania maculosa on the foot glands, J. Touraine.

†*Pseudoneptunea sindonata* Auversian Bracklesham Beds of Huntingbridge, Hants p. 129: *P. venablesi* Astarte bed of the London Clay, Bognor p. 129, p. 14, 15 spp. nov., A. Wrigley Proc. Malac. Soc. London 30 4/5 1953.

Pseudoneptunea of the English Eocene, A. Wrigley.

Siphonalia of the English Eocene, A. Wrigley.

†*Siphonalia praedeclivis* sp. nov. Kuranowa Sandstone, Miyazaki Prefecture, Kyushu, Japan (Upper Miocene), J. Itoigawa Venus 17 4 1953 pp. 215, 217 text-figs. 1, 2.—*Siphonalia highgateensis* nom. nov. (for *Murex tuberosus* J. Sowerby 1819 non Dillwyn 1817) p. 124 f. 5, 6; *S. ferroviae* London Clay of Highgate Tunnel p. 125 f. 7, 8; *S. londinensis* London Clay near Chalk Farm p. 125 f. 11; *S. cooperi* Oldhaven Sands, Bishopstone, E. of Herne Bay, p. 127 f. 9, 10; “*Siphonalia*” *suburbana* London Clay near Chalk Farm, p. 127

f. 13: spp. nov., **A. Wrigley** Proc. Malac. Soc. London **30** 4/5 1953.

VOLUTACEA

Agaronia murraha sp. nov. Corinto, Nicaragua, **S. S. Berry** Trans. S. Diego Soc. N.H. **11** 16 1953 p. 417 pl. 29 f. 1 text-fig. 5.

Amoria (*Amoria*) *grayi* nom. nov. (for *Voluta pallida* Gray 1834 non Linne 1767) p. 136 pl. 14 f. 4, 5: *A. (Amoria) keatsiana* nom. nov. (for *Voluta (Amoria) gatliffi* Sowerby 1910 non Pritchard 1898) p. 138 pl. 18 f. 9, **N. H. Ludbrook** Proc. Malac. Soc. London **30** 4/5 1953.

Amoria a systematic revision of the genus, figs., **N. H. Ludbrook** (2).

Aurinia kieneri ethelae subsp. nov. aff. South Pass, Mississippi River 220 fms. Holotype in col. Mrs. E. L. Townsend, Coconut Grove, Florida, **Pilsbry & Olsson** Nautilus **67** 1 1953 p. 10 pl. 3 f. 1, 2, 2a.

Aurinia H. & A. Adams monotype *Voluta dubia* Broderip. Distribution Southeast Atlantic coast of United States, Florida and the West Indies synonymous *Rehderia* Clench 1945; *Aurinopsis* Clench 1953, **Pilsbry & Olsson** (2).

Biomphalaria alexandrina pfeifferi (Krauss) introduced into Africa, **D. T. de Lucena**.

Clenchina gen. nov. Scaphellinae Volutidae genotype *Voluta dohrni* Sowerby 1903, **Pilsbry & Olsson** Nautilus **67** 1 1953 4.

Clenchina robusta marionae subsp. nov. "Gulf of Mexico" type ANSP 189920, **Pilsbry & Olsson** Nautilus **67** 1 1953 p. 8 pl. 2 f. 4, 5.

Cymbium umbilicatum (Broderip), *C. miltonis* (Gray), types in British Museum, **G. L. Wilkins** (2).

Ericusa orca sp. nov. West Aust. 90 miles W. of Eucla 100 fms., **B. C. Cotton** Tr. roy. Soc. S. Aust. **75** 1952 p. 53 pl. iv f. 4-6.

Mitra belcheri Hinds occurrence off La Paz, Lower California, **J. Burch** (1). — *M. osteguardi* Pilsbry Kwajalein Atoll, Marshall Ids., **Dietrich & Morris**.

Oliva, on notes by J. R. le B. Tomlin on Marrat's species, **W. K. Ford** (2); *O. oblonga* Marrat S. America, holotype figured, **W. K. Ford** (2). — *O. peruviana* Am. Mus. xvi, 28, 317, *senegalensis* Lmk. Ency. Meth. pl. 364 f. 3, *fulgorata* Martens Mal. Bl. 221 1869, *coniformis* Phil. Abb. & Besch. Oliva p. 3 Nr. 5 t. 1 f. 5-7, **F. Riveros-Zuñiga** (2). — *O. peruviana* Lmk. Conchometrical notes, synonymy, **F. Riveros-Zuñiga** (2).

†*Psephaea* (*Neopsephaea*) *antiquior* sp. nov. Oligocene Japan, **H. Takeda** Coal Geol. Studies No. 3, Geol. Sec. Hokkaido Assoc. Coal Mining Technology 1953 p. 59 pl. iv f. 1-4, 10; pl. v f. 7.

Scaphella Swainson 1832 type s.d. Gray 1847 *Voluta junonia* Shaw—distribution Florida coasts westward into the Gulf of Mexico, **Pilsbry & Olsson** (2).

†*Tudicla japonica* sp. nov. Oligocene Japan, **H. Takeda** Coal Geol. Studies No. 3, Geol. Sec. Hokkaido Assoc. Coal Mining Technology 1953 p. 58 pl. ii f. 13-15.

Turbinella pyrum on the food value, **R. Venkataraman & S. T. Chari** (1).

Voluta musica alfordi p. 4, text-fig.; *V. m. tobagoensis* p. 5, text-fig.; subsp. nov. Tobago, **A. H. Verrill** Mins. Conch. Club S. Calif. **134** Dec. 1953.

Volutidae of East Coast of America and Florida, material for a revision, **Pilsbry & Olsson** (2).

Volutifusus Conrad 1863 type by monotypy *Fasciolaria mutabilis* Conrad 1834 (Miocene); synonymy *Bathyaurinia* Clench & Aguayo 1940, **Pilsbry & Olsson** (2).

Xancus pyrum food value of edible portion, **Venkataraman & Chari** (1).

STENOGLOSSA

(β) TOXOGLOSSA

CONACEA

Antiplanes (*Rectiplanes*) *willetti* 50 fms. off Forrester Island S.W. Alaska, **S. S. Berry** Tr. S. Diego Soc. N.H. **11** 16 1953 p. 419 pl. 29 f. 2.

Bathytoma (= *Dolichostoma* Bellardi 1875 non Hope 1839) belongs to subfamily Conorbinae (Turridae), **K. Oyama**.

†*Clavatula (Surcula) consobrina bidentis* subsp. nov. p. 11 pl. i f. 7-8; *C. lethesensis* p. 13 pl. ii f. 13-14; *C. (Surcula) krenneri* p. 13 pl. ii f. 17-18; spp. nov. Middle Miocene Hungary, **M. I. Csepereghyné** (1) Ann. hist. nat. Mus. hung. N.S. 4 1953.

Conus frisbeyae sp. nov. Campeche Banks, Yucatan, Mexico 23 fms., Clench & Pulley Texas J. Sci. 4 1 1952 p. 59 pl. A f. 1.—*C. rainesae* sp. nov. dredged in a shrimper 60 fms. 150 m. N.E. of Progreso, Yucatan, Mexico, T. McGinty Notulae nat. Acad. N.S. Philad. No. 249 1953 p. 1, 2 figs.

†*Cythara (Mangilia) vulpecula polonica* subsp. nov. p. 16, pl. iii f. 8-9; *C. (M.) hontensis* sp. nov. p. 17 pl. iii f. 1, 2: Middle Miocene Hungary, **M. I. Csepereghyné** (1) Ann. hist. nat. Mus. hung. N.S. 4 1953.

†*Drillia granaria szobensis* subsp. nov. Middle Miocene Hungary, **M. I. Csepereghyné** (1) Ann. hist. nat. Mus. hung. N.S. 4 1953 p. 8 pl. i f. 15-16.

Etrempa gen. nov. Turridae Mangeliinae Type (Orthotype) *Drillia subauriformis* E. A. Smith, **K. Oyama** Venus 17 3 1953 p. 155.

Etrempa gen. nov. for *Drillia subauriformis* Sm.; *D. streptonotus* Pilsbry; *Defrancia texta* Dhr.; *Pleurotoma scalarina* Desh.; *Etrema saigoensis* Makiyama; *Clathurella gainesi* Pils.; **K. Oyama** (3).

Ithythyara hyperlepta sp. nov. Ilha Grande, Rio de Janeiro, Brazil, **F. Haas** Fieldiana Zool. 34 1953 p. 207 text-fig. 42.

Iwaoa reticulata gen. et sp. nov. Turridae of deep sea forms off Tosa, Pacific side of Japan, **T. Kuroda** Venus 17 4 1953 pp. 179, 180 text-figs. 9, 9a.

Knefastia princeps sp. nov. 20 fms. pebble, mud and shell bottom, 2 miles N. of Cedros Village, Cedros Id., Baja, California, **S. S. Berry** Trans. S. Diego Soc. N.H. 11 16 1953 p. 420 pl. 29 f. 3 text-fig. 7.

Megasurcula siogamensis (Nomura); *M. kurodai* (Otuka); *M. cryptoconoides* (Makiyama); *M. yokoyamai* (Otuka); *M. elongata* (Hatai); *M. rara* (Nomura & Onisi), **K. Oyama** (4).

†*Moniliopsis (Bathytyoma) cataphracta orientalis* subsp. nov. Middle Miocene

Hungary, **I. Csepereghyné** (1) Ann. hist. nat. Mus. hung. N.S. 4 1953 p. 16 pl. iii f. 19-20.

Nototerebra flindersi sp. nov. S. Australia, Beachport 100 fms., **B. C. Cotton** Trans. roy. Soc. S. Aust. 75 1952 p. 41 pl. iii f. 4.

†*Paleopsephaea o'donnelli* sp. nov. Upper Cretaceous, Angola, **J. V. L. Rennie** Mem. jta. Miss. Geogr. colon. Geol. 1 1945 pp. 10, 58, 123 pl. iv f. 12.

Pervicacia subplicata Backstairs passage 20 fms. f. 3: *P. helena* Eyre Peninsula Farme Beach, Coffins Bay f. 1: spp. nov. Australia, **B. C. Cotton** Trans. roy. Soc. S. Aust. 75 1952 p. 40 pl. iii.

Pseudoentrema gen. nov. Turridae Mangeliinae, Type (orthotype) *Drillia fortilirata* E. A. Smith, **K. Oyama** Venus 17 3 1953 p. 154.

Riugukdrillia Oyama 1951 belongs to subfamily Conorbinae (Turridae), **K. Oyama** (3).

†*Spirotropis (Antiplanes) rugosa* sp. nov. Oligocene Japan, **H. Takeda** Coal Geol. Studies No. 3, Geol. Sec. Hokkaido Assoc. Coal Mining Technology 1953 p. 61 pl. v f. 9.

†*Turris salinasensis* sp. nov. Upper Cretaceous, Angola, **J. V. L. Rennie** Mem. jta. Miss. geogr. colon. Geol. 1 1945 pp. 9, 59, 124 pl. iv f. 13.

Opisthobranchiata

Opisthobranchiata bioluminescence Chapter viii, **E. N. Harvey**.

BULLACEA

†*Acera* p. 10, *Akera* p. 61 and plate, *choffati* sp. nov. Upper Cretaceous, Angola, **J. V. L. Rennie** Mem. jta. Miss. geogr. colon. Geol. 1 1945 pp. 10, 61, 127 pl. iv f. 17, 18.

Acteon tornatilis L. anatomy of the digestive canal, figs., **Gabe & Prenant** (1).—*A. tornatilis* L. some histological data, figs., **Gabe & Prenant** (2).

†*Acteocina lajonkaireana ventricosa* pp. 83, 105 pl. 20 f. 97-98; *A. l. maxima* pp. 83, 106 pl. 20 f. 99, 100; subsp. nov., *A. heraclitica* sp. nov. pp. 83, 106 pl. 18 f. 65-71: Tertiary Vienna, **W. Berger** Arch. Mollusk. 82 4/6 1953.

Aglaja minuta sp. nov. Témara, A. Pruvot-Fol Trav. Inst. sci. Chérifien No. 5 1953 p. 30 pl. ii f. 28-30 text-fig. v.

†*Atys (Alicula) lapugensis* sp. nov. Tertiary Vienna, W. Berger Arch. Mollusk. 82 4/6 1953 pp. 83, 86 pl. 19 f. 88, 89 text-fig. 1.

Chelidonura africana sp. nov. Dakar; Témara; A. Pruvot-Fol Trav. Inst. sci. Chérifien No. 5 1953 p. 31 pl. iii f. 37-39 text-fig. vi.

†*Consobrinella* gen. nov. of Acteonidae genotype *Consobrinella elegantula* sp. nov. Mesozoic late Trias Peru, O. Haas Bull. Amer. Mus. Nat. Hist. 101 1953 pp. xi, 279, 280 pl. 18 f. 62-78.

†*Cosmophiline* gen. nov. Philinidae *marinellii* sp. nov. Tertiary Vienna, W. Berger Arch. Mollusk. 82 4/6 1953 pp. 84, 115 pl. 18 f. 87.

†*Cylichna (Cylichna) subbacillus* sp. nov. Tertiary Vienna, W. Berger Arch. Mollusk. 82 4/6 1953 pp. 84, 110 pl. 18 f. 74.—*C. multistriata* sp. nov. Oligocene, Japan, H. Takeda Coal Geol. Studies No. 3, Geol. Sec. Hokkaido Assoc. Coal Mining Technology 1953 p. 61 pl. ii f. 10, 11.

†*Cylindrobullina (Cylindrobullina) vespertina* p. 258 pl. 17 f. 1-34, 37, 38, 45, 47, 48; *C. (C.) avenoides* p. 261 pl. 17 f. 35, 36, 39-42, 46, 49-51, 58, 59; *C. (? C.) obtusa* p. 264 pl. 17 f. 54-57, 60-63, 65, 66, 70, 71, 75, 76, 79-82, 86; *C. (? C.) pyrulaeformis* p. 266 pl. 17 f. 67-69, 72-74, 84, 85; *C. (? C.) tenuicostata* p. 268 pl. 18 f. 3-8; *C. (Conactaeon) peruviana* p. 269 pl. 18 f. 1, 2, 9-16, 18-22; *C. (? Co.) tilarniocensis* p. 274 pl. 18 f. 32-37, 44, 45, 48; *C. (Euconactaeon) tambosolensis* p. 277 pl. 18 f. 40-43, 46, 47, 49-52, 59-61; *C. (E.) ninacacana* p. 278 pl. 18 f. 53-58 spp. nov. Mesozoic late Trias Peru, O. Haas Bull. Amer. Mus. Nat. Hist. 101 1953.

Haminea antillarum guadalupensis Sow. infected by a new species of *Cercaria*, W. H. Leigh.—*H. gantesae* sp. nov. Témara, A. Pruvot-Fol Trav. Inst. sci. Chérifien No. 5 1953 p. 27 pl. 11 f. 31.

†*Haminea (Haminea) hydatis mio-caenica* subsp. nov. Tertiary Vienna, W. Berger Arch. Moll. 82 4/6 1953 pp. 83, 87 pl. 16 f. 5, 7.

Micraenigma gen. nov. [Bullidae] genotype *Micraenigma oxytoma* sp. nov. 25 fms. fine brown sand and mud, $\frac{1}{2}$ mile off Cedros Village, Cedros Id., Baja California, S. S. Berry Trans. S. Diego Soc. N.H. 11 16 1953 p. 423 text-figs. 9, 10.

Pluscula cuica gen. et sp. nov. Philinoglossidae, Philinoglossacea in sand lower tidal zone Island of São Sebastião, E. Marcus Bol. Fac. Filos. Sci. S. Paulo (Zool.) No. 18 1953 pp. 176-181 figs. 41-49.

†*Retusa (Retusa) truncatula grundensis* pp. 83, 90 pl. 16 f. 16; *R. t. sarmatica* pp. 83, 91 pl. 16 f. 20, 21; *R. t. pappi* pp. 83, 91 pl. 16 f. 19 subsp. nov., *R. (Retusa) vindobonensis* sp. nov. pp. 83, 92 pl. 16 f. 22 text-fig. 4; *R. (R.) mammillata vöslovensis* subsp. nov. pp. 83, 94 pl. 16 f. 26-27; *R. (Acrostemma) edlaueri* sp. nov. pp. 83, 96 pl. 16 f. 30; *R. (A.) kühnelli* sp. nov. pp. 83, 96 pl. 19 f. 31; *R. (Cylichnina) leuchsii* sp. nov. pp. 83, 98 pl. 17 f. 38-39; *R. (Pyrunculus) austriaca* sp. nov. pp. 83, 102 pl. 17 f. 48; *R. (P.) postneglecta* sp. nov. pp. 83, 102 pl. 17 f. 49-51 Tertiary Vienna, W. Berger Arch. Mollusk. 82 4/6 1953.

Ringicula moutai sp. nov. Upper Cretaceous, Angola, J. V. L. Rennie Mem. jta. Miss. geogr. colon. Geol. 1 1945 pp. 10, 63, 128 pl. iv f. 19.

†*Roxania (Sabatia) callifera helvetica* subsp. nov. Tertiary Vienna, W. Berger Arch. Mollusk. 82 4/6 1953 pp. 84, 112 pl. 18 f. 79.

Runcina africana sp. nov. Témara, A. Pruvot-Fol Trav. Inst. sci. Chérifien No. 5 1953 p. 25 pl. 11 f. 35 text-fig. 1.

Unela remanei gen. et sp. nov. Microhedyliidae, Acochlidiae in sand lower tidal zone Island of São Sebastião, E. Marcus Bol. Fac. Filos. Sci. S. Paulo (Zool.) No. 18 1953 pp. 168, 169, figs. 1-17.

Woodbridgea gen. nov. [Bullidae] genotype *Woodbridgea williamsi* sp. nov. 25 fms. fine brown sand and mud $\frac{1}{2}$ mile off Cedros Village, Cedros Id., Baja California, S. S. Berry Trans. S. Diego Soc. N.H. 11 16 1953 p. 422 text-fig. 8.

APLYSIACEA

Aplysia vistosa sp. nov. Témara p. 37 pl. i f. 15, 17.—*Aplysia parva* p. 38 pl. iii f. 42, 43 Témara text-fig. ix.

A. Pruvot-Fol Trav. Inst. sci. Chérifien No. 5 1953.

Aplysiella webbii v. Ben. & Robb. reproduction and larval stage, figs., R. Gilet.

Aplysiopsis formosa sp. nov. Témara, A. Pruvot-Fol Trav. Inst. sci. Chérifien No. 5 1953 p. 47 pl. ii f. 21.

Dolabella scapula, on the crystalline style, Hashimoto, Hibiya & Iwai.—*Dolabella scapula* chemical contents of the stomachal plates, Hashimoto & Hibiya.—*D. scapula* structure of stomachal plates, Hibiya, Iwai & Hashimoto.

PTEROPODA

Heteropoda of Western Sinai (Egypt), C. Beets.

†*Hyolithes montis* sp. nov. Cambrian Alberta, B. F. Howell Bull. Wagner Inst. sci. Philad. 27 2 1952 p. 16 pl. 1 f. 1.

†*Metaconularia sinclairi* sp. nov. (as in Phylum Coelenterata) from the Silurian Sodus formation New York, B. F. Howell Bull. Wagner Inst. Sci. Philad. 25 1 1950 p. 1, plate.

Pteropoda of Western Sinai (Egypt), C. Beets.

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Pteropoda light and temperature control on vertical distribution in Floridan plankton, Moore, Owre, Jones & Dow.

†*Spirialis andrussovi* Kittl var. *macoticum* var. nov. Macoticum, northern Caucasus, Russia, N. N. Poroshin, C.R. Acad. Sci. Moscow N.S. 83 4 1952 p. 607.

Nudibranchiata

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ELYSIACEA

Alderia modesta (Loven) occurrence on salt marshes of the Dutch Waddenze, C. D. Hartog & C. Swennen.

Hermaea paucicirra p. 44 pl. ii f. 26, *H. dakariensis* p. 45 text-fig. xiii a-b spp. nov. W. Africa, A. Pruvot-Fol Trav. Inst. sci. Chérifien No. 5 1953.

Limapontia depressa Ald. & Hart. occurrence on the salt marshes of the Dutch Waddenze, C. D. Hartog & C. Swennen.

Stiliger (n. sp. ?), A. Pruvot-Fol Trav. Inst. sci. Chérifien No. 5 1953 p. 43 text-fig.

DORIDACEA

Archidoris pseudoargus anatomy, radular fig., J. E. Forrest.

Aldisa binotata sp. nov. Fédala, A. Pruvot-Fol Trav. Inst. sci. Chérifien No. 5 1953 p. 68 f. xxiii.

Atagema africana sp. nov. Dakar, A. Pruvot-Fol Trav. Inst. sci. Chérifien No. 5 1953 p. 76.

Dendrodoris temarana sp. nov. Témara, A. Pruvot-Fol Trav. Inst. sci. Chérifien No. 5 1953 p. 87 pl. iii f. 55.

Doriopsilla fedalae sp. nov. Fédala, A. Pruvot-Fol Trav. Inst. sci. Chérifien No. 5 1953 p. 92 pl. ii f. 32, fig. xxxiv.

Elysia pruvotae sp. nov. Bay of Montravel, Noumea, J. Risbec Fauna Union franc. 15 1953 p. 173, f. 123, 124.

Glossodoris bilineata sp. nov. Témara, A. Pruvot-Fol Trav. Inst. sci. Chérifien No. 5 1953 p. 71 pl. i f. 7-9.—*Glossodoris (Chromodoris) odhneri* sp. nov. Bay of Citrons, Noumea, J. Risbec Fauna Union franc. 15 1953 p. 84 f. 42.

Goniodoris nodosa anatomy, radula fig., J. E. Forrest.

Miamira flexicostata sp. nov. Amakusa, Japan, K. Baba Zool. Mag., Tokyo 52 1940 : 239.

Rolandia dollfusae sp. nov. Skhrirate, A. Pruvot-Fol Trav. Inst. sci. Chérifien No. 5 1953 p. 58 f. xix, xix bis.

Rostanga temarana sp. nov. Témara, A. Pruvot-Fol Trav. Inst. sci. Chérifien No. 5 1953 p. 78 fig. xxv & xxvi bis.

Thordisa (?) souriei sp. nov. Dakar, A. Pruvot-Fol Trav. Inst. sci. Chérifien No. 5 1953 p. 66 f. xxii.

AEOLIDIACEA

Aeolidia papillosa and its preference for certain coelenterates as food, Braams & Geeler.—*A. papillosa* (L.) and preference for the sea anemone *Metridium senile* (L.), H. Stehouwer.

Cratena aurantia and its preference for certain coelenterates as food, **Braams & Geeler.**

Dendronotus frondosus and its preference for certain coelenterates as food, **Braams & Geeler.**

Ganitus evelinae gen. et sp. nov
Microhodylidae, Acochlidiae in sand
lower tidal zone Island of São Sebastião,
E. Marcus Bol. Fac. Filos. Sci. S. Paulo
(Zool.) No. 18 1953 pp. 168, 172-174
f. 24-40.

Hervia violacea sp. nov. Dakar, **A. Pruvot-Fol** Trav. Inst. sci. Chérifien
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Phyllirrhoa and *Mnestra* association, **W. E. Ankel.**

Pseudovermis salamandrops sp. nov.
in sand lower tidal zone Island of São
Sebastião, **E. de B.-R. Marcus** Bol. Fac.
Filos. Sci. S. Paulo (Zool.) No. 18 1953
pp. 109, 110-115 p. 1-5.

Spurilla dakarensis sp. nov. Dakar,
A. Pruvot-Fol Trav. Inst. sci. Chérifien
No. 5 1953 p. 55 fig. xvi.

PLEUROBRANCHIACEA

Berthellina africana sp. nov. Témara,
A. Pruvot-Fol Trav. Inst. sci. Chérifien
No. 5 1953 p. 40 pl. iii f. 49, 50.

Pleurobranchus (Oscania) amarillius
sp. nov. Isle de la Gata, Parguera,
Puerto Rico, **N. T. Mattax** Nautilus,
Philad. 66 4 1953 p. 110 pls. 9, 10.

Pulmonata

Land and Freshwater mollusca of
Puerto Rico, **H. v. d. Schalie** (1).

Pulmonata—chromosomes in Basommatophorid species, **A. Inaba**; Freshwater species of Pulmonata and Carotinoid content, **V. Kubista**; Pulmonata of the Italian littoral, **C. F. Sacchi** (2).

ELLOBIACEA

Carychium minimum and *C. tridentatum* differences tables and graphs
and pls. 9, 10, **H. Watson & B. Verdcourt.**

Leucophytia function of stomach,
figs., **J. E. Morton** (1).

Pseudomelampus exiguus Lowe on the
Basone coasts figs., **B. S. Kisch** (1).

SIPHONARIACEA

Siphonaria sirius Pilsbry homing
behaviour, **Ohgushi, Miura & Kotani.**

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Ancylastrum Bourguignat 1853, Proposed
addition of the name to the
Official List, **B. Hubendick** (2).

Ancylus fluviatilis and the problem
of respiratory acclimatisation, **K. Berg.**
—*A. fluviatilis* distribution by *Dytiscus marginalis*, **A. Buttner.**—*A. fluviatilis* growth, figs., **W. R. Hunter** (5).—*A. Müller* 1774 proposed use of plenary powers to designate a type species, **B. Hubendick** (1).—*A.*, Observations on the proposal relating to type species of *Ancylus*, *Acrolochus*, *Ancylastrum*, *Pseudancylus*, *Tasmancylus* and/or the usage thereof, **H. Watson** (1).

Australorbis glabratus Field test control in Puerto Rico, **Berry, Nolan & Gonzalez.**—*A. glabratus* and *Schistosoma*, **C. P. Brooks.**—*A. glabratus* (Say) experiments on variations in Infectivity, **Evans & Stirewalt.**—*A. glabratus* anatomy and histology figs., **G. Marcuzzi.**—*A. glabratus* enzymatic equipment of the digestive tract, **B. M. Neto.**—*A. glabratus* and its tissue reaction to infection with *Schistosoma*, **W. L. Newton** (1).—*A. glabratus* and control by sodium pentachlorophenate, **Newton & Haskins.**—*A. glabratus*, influence of lack of Oxygen on infected examples, **Olivier, Brand & Mehlman.**

Biomphalaria alexandrina tanganiicensis a transmitter of *Schistosoma mansoni* in Lake Albert, **A. Fain** (4).

Biomphalaria boissyi experiments relative to effective time exposure to copper sulphate, **D. O. Hoffman & R. Zakhary** (1, 2).

Bulinus contortus Mich. occurrence in France, **L. & H. Lamy.**—*B. truncatus* seasonal variation, studies on bilharziasis, **T. M. Watson.**

Ferrissia novangliae a first intermediate host of Trematodes, **R. J. Smith.**

Fossaria parva (Lea) in Louisiana,
Biological observations, **B. E. Prince.**

†*Gyraulus procerus* sp. nov. Tertiary Kishenehn formation S.E. British Columbia, L. S. Russell Bull. nat. Mus. Can. No. 126 1952 131, text-fig., pl. xix f. 3-13.

Helisoma and the preputial organ in this genus, E. T. Abdel-Malek.

Helisoma trivolvis in copulation fig., E. T. Abdel-Malek.—*H. trivolvis* Say ecological notes on wintering conditions of this and other snails, J. A. Jones.

Indoplanorbis exustus Parasitology, M. M. Sarwar.

Isidorella brazieri southern N.S. Wales figs., D. F. McMichael.

Lenameria pectorosa N.S. Wales fig., D. F. McMichael.

Limnaea and carotinoid content, V. Kubista.—*Limnaea*, On the effect of chilling and cyanide on the osmotic equilibrium of the egg, Raven, Bezem & Geelen.

Limnaea truncatula life history, S. B. Kendall (2).—*L. truncatula* and the Parthenitae of *Fasciola hepatica*, S. B. Kendall (1).—*L. (Galba) truncatula* (Müll.) Ecological and Parasitological notes from the Belgian Congo, A. Fain (1).—*L. (Pseudosuccinea) luteola* Lk. 1822 f. *booni* forma nov. Aquarium at Bangkhen Fishpond Station, Bangkok, Thailand, H. C. Ray Rec. Indian Mus. 49 1952 p. 219 pl. v f. 1-14.—*L. lessoni* N.S. Wales fig., D. F. McMichael.—*L. newcombi*, *L. volutata*, *L. reticulata*, *L. rubella*, *L. aulacospira*, are all endemic to the Hawaiian Islands, figs., B. Hubendick (5).—*L. (Simlimnaea) brazieri* N.S. Wales figs., D. F. McMichael.—*L. (Radix) natalensis unduassumae* Marts. a transmitter of *Fasciola gigantea*; and experimental reproduction, A. Fain (3).—*L. peregra* (Müll.) a study of the mantle cavity of examples from Loch Lomond, W. R. Hunter (4).—*L. peregra* (Müll.) on migration on the shores of Loch Lomond, W. R. Hunter (6).—*L. stagnalis*, Histological investigations on exogastrulae obtained by centrifuging the eggs, A. J. Paris.—*L. stagnalis*, influence of Anaerobiosis on the eggs, Raven & Rijckevorsel.—*L. peregra* structure of spermatozoa, Selman & Waddington.—*L. stagnalis*, effect of heat shock, A. H. J. Visschedijk.—*L. stagnalis* effects of calcium

and lithium on development, L. G. de Vries.—*L. stagnalis* and contributive factors to its occurrence in Egypt, A. F. Abdel-Ghani.—*L. stagnalis* in Cumberland, E. Blezard.—*L. stagnalis* experiment on development influenced by chemicals, tables, Haije & Raven.—*L. stagnalis* (L.) a host for *Fascioloides magna*, Wu & Kingscote.—*L. stagnalis appressa* Say effect of temperature on hatching, C. M. Vaughn.—*L. japonica* oviposition, M. Takahashi.

Lymnaeidae, studies on the Chromosome numbers, Inaba & Tenaka.

Planorbidae of the Dutch West Indies, E. v. d. Kuyp; Planorbidae biology, E. Lagrange (2); Planorbidae of the Belgian Congo, J. Schwetz (7); Planorbidae and Schistosomiasis in the Amazon region, H. Sioli; Planorbidae and their transmission of *Schistosoma* in the eastern Congo, J. Schwetz (2).

Planorbis biological notes, E. Lagrange (1).

Planorbis boissyi the intermediate host of *Schistosoma mansoni* and its distribution, M. Helmy.—*P. gardei*, *P. tilhoi* and *P. dallonii* all of Germain, Radulae, and genital system, figs., Ranson & Cherbonnier.—*P. stanleyi* in Lake Kivu a transmitter of Schistosoma, J. Schwetz (1).—*P. stanleyi* as a carrier of Schistosomiasis, J. Schwetz (10).—*P. tanganyicensis* a transmitter of *Schistosoma mansoni* in Lake Tanganyika, J. Schwetz (5).—*P. smithi* Preston ecological notes, J. Schwetz (9).

†*Planorbis kishenehnensis* sp. nov. Tertiary Kishenehn formation S.E. British Columbia, L. S. Russell Bull. nat. Mus. Can. No. 126 1952 130 text-figs. pl. xix f. 1.

Physa fontinalis (L.) a study of mantle cavity of examples from Loch Lomond, W. R. Hunter (4).

Physidae, Developmental stages, hatchability and infectivity of ochetosomalid eggs in the snails, Byrd & Scofield.

Physopsis africana, *P. tanganiakanus*, as carriers of Schistosomes in Central Africa, B. Bisseru.

Problancylus beddomei Tasmania fig., D. F. McMichael.

Promenetus minutus sp. nov. Barro Colorado Id., Gatun Lake, Panama Canal Zone, **D. W. Taylor** Rev. Soc. malac. Habana 92 1954 p. 37.

Pseudosuccinea columella (Say) a new intermediate host for *Fasciola gigantica*, **J. E. Alicata**.

Stagnicola catascopium (Say) in Amethyst Lake, Alberta, **D. S. Rawson** (1).

†*Stagnicola newmarchi* sp. nov. Tertiary, Kishenehn formation S.E. British Columbia, **L. S. Russell** Bull. nat. Mus. Can. No. 126 1952 129 text-figs. pl. xviii f. 7-11.

Taphius costatus p. 116 f. 5 pl. vi f. 1-3; *T. thermalus* p. 118, f. 6, pl. vi f. 4-6 spp. nov. Chile, **W. A. Biese** Bol. Mus. nac. Hist. nat. Chile 25 1951.

Tropicorbis schmiererianus p. 122 text-fig. 2 pl. vi f. 10-12; *T. montanus* p. 125 text-fig. 3 pl. vi f. 13-15 spp. nov. Chile, **W. A. Biese** Bol. Mus. nac. Hist. nat. Chile 25 1951.

Tropicorbis havanensis and *Schistosoma*, **C. P. Brooks**; *T. havanensis* and *Schistosoma mansoni* infection, **R. M. McQuay** jr.

Wilcoxorbis sexological studies, **G. R. Webb** (4).

VAGINULACEA

Congoveronicella subgen. nov. of *Pseudoveronicella*, subgenotype *P. (C.) schoutedeni* sp. nov. Lundo, Belgian Congo, **L. Forcart** Ann. Mus. Congo belg. 23 1953 p. 54 pl. 2 f. 1a-c, pl. 4 f. 2, map 4 tab. 10 p. 52.

Heterovaginina subgen. nov. of *Vaginina* subgenotype *Vaginina (Heterovaginina) peruviana* sp. nov., **O. Kraus** Arch. f. Mollusk. 82 1/3 1953 pp. 63, 65.—*Heterovaginina* on the anatomy and systematic position, **O. Kraus** (2).

Hoffmannia subgen. nov. of *Pseudoveronicella*, subgenotype *Pseudoveronicella zootica* Hoffmann 1927, **L. Forcart** Ann. Mus. Congo belg. 23 1953 pp. 43, 45.

Laevicaulis zanzibaricus sp. nov. Zanzibar, **L. Forcart** Ann. Mus. Congo belg. 23 1953 p. 86 pl. 2 f. 10a-c, pl. 5 f. 3a-b map 9 tab. 21 p. 84.

Pseudoveronicella cabindana sp. nov. p. 36 pl. i f. 2a-c, pl. 3 f. 3a-b, map 2 tab. 3 p. 37, Cabinda, Sasso Zao; *P.*

sjöstedti sp. nov. p. 39 pl. 1 f. 3a-d, pl. 3 f. 4a-d map 3 tab. 4 p. 40 Cameroun, Ngolo Nidian; *P. ghesquierei* sp. nov. p. 43 pl. 1 f. 4a-c, pl. 3 f. 5a-c map 2 tab. 5 p. 42 Belgian Congo, Prov. Coquilhatville: **L. Forcart** Ann. Mus. Congo Belg. 23 1953.

Pseudoveronicella (Vaginina) duporti sp. nov. near Conakry, French Guinea, **L. Forcart** Ann. Mus. Congo belg 23 1953 p. 62 pl. 2 f. 3a-c pl. 4 f. 6a-b, map 5 tab. 13 p. 61.

Pseudoveronicella (Hoffmannia) zootica aethiopica subsp. nov. Sidamo Abyssinia p. 46 pl. 1 f. 6a-c, pl. 3 f. 7a-b map 3 tab. 7 p. 47; *P. (H.) dartevillei* p. 48 pl. 1 f. 8a-c, pl. 4 f. 1 map 4 tab. 8 p. 49 Bakougni, Middle Congo; *P. (H.) pauliani* p. 52 pl. 1 f. 7a-b, pl. 4 f. 4, map 4 tab. 9 p. 51 Ivory Coast; spp. nov., **L. Forcart** Ann. Mus. Congo belg 23 1953.

Vaginina (Heterovaginina) peruviana subgen. et sp. nov. Peru, **O. Kraus** Arch. f. Mollusk. 82 1/3 1953 p. 63 text-figs. la-d.

Vaginula maculata Golgi bodies in male germ cells, **J. R. Baker**.

SUCCINEACEA

Quickella (Mediappendix) wandai pp. 214, 216 f. 2, 2b, 11, type; f. 5, 5a, 6, 6f, 17-20 paratype, Kansas; *Q. (M.) oklahomarum* pp. 213, 220 f. left 9-9i, 10 type; f. right 9-9i, 22 paratype, Oklahoma spp. nov., **G. R. Webb** J. Tenn. Acad. Sci. 28 3 1953.

Succinea pfeifferi among fallen leaves on the shores of Loch Lomond, **W. R. Hunter**.

Succinea (Calcisuccinea) vaginacorta sp. nov. S.-W. corner of sec. B.T.33 S.R. 28 W. Meade Co., Kansas, **C. B. Lee** Occ. Pap. Mus. Zool. Univ. Mich. No. 533 1951 p. 2 pl. 1 f. 2, 3, pl. ii.

Succiniidae as hosts of *Neoleucochloridium*, **I. G. Kagan**.

ACHATINELLACEA

†*Partulina arnemanni* sp. nov. p. 346 f. 6a, *P. dubia perantiqua* subsp. nov. p. 344 f. 6c, *P. dubia* f. 6d, Hawaii Ids., **Cooke & Kondo** Occ. Pap. Bishop Mus. 20 22 1952.

VERTIGINACEA

Acrophaedusa thrausta sp. nov. Mount Kerintji, Sumatra, F. E. Loosjes Beaufortia 31 1953 pp. 13, 147, 154 text-fig. 44.

Alloptyx subgen. nov. of *Vertigo* subgenotype *Vertigo hinkleyi* Pilsbry, H. A. Pilsbry Proc. Acad. Nat. Sci. Philad. 105 1953 p. 164.

†*Carelia evelynae* sp. nov. p. 331 f. 2 a-f; *C. pilsbryi tsunami* subsp. nov. p. 335 f. 3 a-d; *C. olivacea molaaensis* subsp. nov. p. 338 f. 4 a-f; *C. paradoxa waikouliensis* "new geographical race" [var. nov.] p. 340; *C. paradoxa magnapustulata* "new geographical race" [var. nov.] p. 341 f. 5 a-c Hawaiian Islands, Cooke & Kondo Occ. Pap. Bishop Mus. 20 20 1952.

Chaenaxis sonorensis sp. nov. Sonora, Northern Mexico, H. A. Pilsbry Proc. Acad. nat. Sci. Philad. 105 1953 p. 163 pl. 9, f. 8, 8a.

Chondrina avenacea (Boug.), *C. clienta* (Westl.) notes, J. G. J. Kuiper (1).

Cionella lubrica [= *Cochlicopa lubrica*] the intermediate host of *Dicrocoelium dendriticum* studies i-vii, Krull & Mapes.—*C. lubrica* (Müller) a new intermediate host of a Trematode, C. R. Mapes.

Clausiliidae—notes, F. E. Loosjes (3).

Cochlodina remota sp. nov. Clausiliidae, Northern Czechoslovakia, V. Lozek Mem. Soc. zool. tchéosl. 16 1952 135 text-figs. 1-3, map.

Delima itala G. v. Marts. in N. Tyrol, S. Jaekel (1).

Gastrocopta biasidens sp. nov. Chihuahua Northern Mexico, H. A. Pilsbry Proc. Acad. nat. Sci. Philad. 105 1953 p. 162 text-figs. 2-3.

Lacinaria (Pseudalinda) moravica sp. nov. Moravia, J. Brabenec Mém. Soc. zool. tchéosl. 16 1952 p. 23 text-figs.

Lacinaria (Euxina) persica (O. Boettger) fig. and *L. (E.) huebneri* (Ressm.) from Zonguldak, Northern Asiatic Turkey, F. E. Loosjes (1).

Nenia bequaerti sp. nov. Perija, C. S. Arias Mem. Soc. Cienc. nat. La Salle 13 35 1953 p. 251 pl. 1 f. 5 and text-fig.

Nenia (Columbinia) koepckeae sp. nov. Peru, A. Zilch Arch. f. Mollusk. 82 1/3 1953 p. 49 pl. 14 f. 1 text-figs. 1-3.

Phaedusa dorsoplicata Mount Parung Borneo pp. 12, 16, 31 text-fig. 6; *P. lucens* pp. 12, 15, 35 text-fig. 8, Mount Charas, Malay Peninsula; spp. nov.; *P. corticina batuensis* subsp. nov. pp. 12, 16, 24 text-fig. 2, Batu Ids., Tanah Masa; *P. filocostata compressa* subsp. nov. pp. 12, 38, 44 text-fig. 10, Mount Chintamani, Malay Peninsula; *P. filocostata musangensis* subsp. nov. pp. 12, 38, 49 text-fig. 12, Gua Musang, Malay Peninsula, F. E. Loosjes Beaufortia 31 1953.

Pseudonenia gracilenta nom. nov. pp. 12, 58, 75 fig. 19 = *Clausilia obesa* v. *gracilior* Marts. Sumatra, Manindjan; *P. scalariformis* sp. nov. pp. 12, 57, 78 text-fig. 20, Mount Poe, Sarawak; *P. brachyptycta* sp. nov. pp. 12, 58, 97 text-fig. 27 Rediang, Sumatra; *P. jacobsoni* sp. nov. pp. 12, 58, 100 text-fig. 28 Sibogo, Simalur Island, F. E. Loosjes Beaufortia 31 1953.

Pupisoma vimontianum (Crosse) ratification of nomenclature and identity, A. Franc (1).

Pyramidula laosensis sp. nov. Indo-China, E. Saurin J. Conchyliol. Paris 93 4 1953 p. 119, pl. iv, f. 11 a, b, c.

Strobilops pilsbryi p. 53 pl. 6 f. 1-3, Whilby Cave, Bermuda (USNM 618651); *S. sinaloa* p. 54 pl. 6 f. 4-6 on succulent plants from Sinaloa, Mexico: spp. nov., J. P. E. Morrison Nautilus, Philad. 67 2 1953.

Vallonia pulchella, *V. excentrica* figs. of ellipticity curves, R. W. Sparks (2).

†*Vallonia pulchella* (Müller), *V. p. enniensis* (Gredler) Pleistocene; *V. excentrica*, *V. costata* Holocene England, figs., R. W. Sparks (2).

Vertigo ovata a possible host of *Hasstelesia tricolor*, E. J. Robinson, jr.—*V. ventricosa elatior* Sterki as intermediate hosts of the rabbit parasite *Hasstelesia*, W. B. Rowan.

Zebrina detrita, C. R. Boettger (4).

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Melanilla alcaldei p. 57 pl. 7 f. 1; *M. fuentesi* p. 58 pl. 7 f. 2; *M. camagueyana* p. 59 pl. 7 f. 4; *M. bermudezi* p. 60 pl. 7 f. 3; *M. quinonesi* p. 63 spp.

nov. Cuba; *M. camagüeyana rodriguezi* p. 60 pl. 7 f. 5; *M. gracillima pinensis* p. 61 subsp. nov. Cuba, Aguayo & Jaume Rev. Soc. malac. Habana 9 2 1954.

Oleacina (Larvoleacina) rangelina sp. nov. Baracao Habana, Aguayo & Jaume Mem. Soc. cubana Hist. nat. 21 3 1953 p. 279 pl. 32 f. 9.

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Achatina fulica on the egg clutch and its fluorescence, Fischer & Brunel-Chapelle.—*A. fulica* Bowdich Amino acid in dehydrated specimens, A. R. Mead & A. R. Kemmerer.—*A. fulica* ecological notes, G. P. Sudirdjo.—*A. fulica* chemical content, P. B. Saxena.

Achatina (Lissachatina) reticulata Pfr. a giant specimen L. 209 W. 94 mm., T. Pain (1).

Achatina (Lissachatina) fulica Bowdich sinistral examples, T. Pain (2).

ZONITACEA

A[griolimax] reticulatus occurrence and experiments in re-stocking a garden, H. F. Barnes.

Allogona profunda, on the Chromosomes, figs., Husted & Burch (2).

Anguispira alternata a scalariform example, A. Solem (2).

Ariolimax columbianus an intermediate host of the nematode *Brachylaemus virginiana* in California, Hand & Voge.

Arion on the genus name, E. Degner.

Arion rufus L. in Berlin, E. Frömming (2).—*A. rufus* L. experiments on regeneration and X-rays, P. Laviolette.—*A. empiricorum* Fér. ecological notes, W. Schreitmüller.

Caracollatus sec. nov. of *Stenotrema*, type of sec. *Stenotrema spinosum* (Lea 1830), A. F. Archer Mus. Pap. Ala. Mus. nat. Hist. No. 28 1948 p. 19.

Charopa renschi nom. nov. for *C. vicina* Rensch 1930 non Preston 1907, A. Franc Bull. Soc. zool. Fr. 77 1952, 78. —*C. sabura* (Gassies), *C. kanakina* (Gassies) figs., A. Franc (2).

Cohutta sec. nov. of *Stenotrema*, type of sec. *Stenotrema cohuttense* (Clapp 1914), A. F. Archer Mus. Pap. Ala. Mus. nat. Hist. No. 28 1948 p. 49.

Derofera reticulatum Müller a cytological study of the germ cells, H. Bridgeford.

Discus rotundata occurring in New Jersey, S. D. Freed.

Erectidens gen. nov. p. 46 [Polygyridae?] genotype *Erectidens trichalus* sp. nov. pp. 46, 47 text-figs. 1, 2, Drift debris of the Rio Maurisco near junction with the Rio Carrizo to form the Rio Ramos state of Nuevo Leon, Mexico, H. A. Pilsbry Nautilus, Philad. 67 2 1954.

Eumelus wetherbyi (Binney) studies on sexology; figs., G. R. Webb (5).

Hojeda mayarina sp. nov. Cuba, C. G. Aguayo Mem. Soc. cubana Hist. nat. 21 3 1953 p. 309 pl. 35 f. 3-5.

Hyalinia dendrobia Crosse ratification of nomenclature and identity, A. Franc (1).

Magnipelta gen. nov. Arionidae genotype by monotypy *Magnipelta mycophaga* sp. nov. 4½ m. S.-S.E. of Lolo Pass, Idaho at 4500 ft. elevation, H. R. Pilsbry Nautilus, Philad. 67 2 1953 p. 37 pl. 5 f. 1, 2, 3.

Mesodon andrewsae normalis Pils. in Virginia, P. R. Burch.—*M. andrewsae normalis* (Pils.) locality Bent Creek, Experimental Forest, Dunmore Mts. N.C., L. Hubricht (3).—*M. rugeli* chromosome figs., Husted & Burch (2).

Mesomphix cupreus and *M. subplanus* sexological notes, figs., G. R. Webb (7).

Milax niger (C. Pfeiffer 1894) notes and anatomy, figs., C. O. v. R. Altena (1).—*M. gracilis* (Leydig), *M. gagates* Drap., *M. sowerbyi* differences, W. D. Lang.

Neohelix sexological studies, G. R. Webb (4).

Pallifera varia sp. nov. Virginia, L. Hubricht Nautilus, Philad. 66 3 1953 p. 78 pl. 7 f. 1, 6.—*P. dorsalis*, *P. fosteri* anatomy, G. R. Webb (3).

Pallifera (Pangalyptus) fosteri oughtoni "N. sp." [subsp. nov.] City County Park 1 m. N. of Princeton Bureau Co. Illinois, G. R. Webb Gastropodia 1 1 1952 p. 6 f. 1, 2, 5b.

Philalanka lieftincki sp. nov. Ambon Id., W. S. S. v. B. Jutting Treubia 22 1953 p. 303 text-fig. 2.

Philomycus venustus p. 79, pl. 7, f. 3, 4; *P. virginicus* p. 80, pl. 7, f. 2, 5; spp. nov. Virginia U.S.A., L. Hubricht *Nautilus*, Philad. 66 3 1953.

Polygyra fosteri a host of *Cosmocercoides dukae*, R. E. Ogren.

Ptychodon (Thaumatodon) derbesiana (Crosse), figd., A. Franc (2).

Retinella nitens (Mich.) copulatory organs, euphallic and aphallic forms, figs., A. Riedel—*R. indentata* (Say) a first intermediate host of *Entosiphonuss thompsoni*, J. B. Villela.

Stenotrema monedon aliciae chromosomes figs., Husted & Burch (2).—*S. hirsutum* (Say) from Michigan ecological notes, C. B. Lee (1).

Trachycystis distribution in Africa, B. Verdcourt (2).

Triodopsis tridentata edentilabris chromosomes figs., Husted & Burch (2).—*T. fraudulenta vulgata* a scalariform example, A. Solem (2).

Ventridens suppressus (Say) in Staten Id., New York, M. K. Jacobson (1).

Xolotrema, sexological studies, G. R. Webb (4).

Zonitidae of Pittsylvania Co., Virginia: list, L. Hubricht (4).

Zonitoides arboreus biology and distribution in Sweden, H. W. Waldén.

ARIOPHANTACEA

Ariophanta maderaspatica (Gray) histology and histochemistry of the genital tract, V. K. S. Ivengar.

Boysidia novemdentata p. 115, pl. iv, f. 4a, b, c, text-fig. 1; *B. pahpetensis* p. 116, pl. iv, f. 5a, b, c, text-fig. 2; spp. nov. Indo-China, E. Saurin J. Conchyliol. Paris 93 4 1953.

Hemiplecta of N.W. & S.W. Siam, F. Haas (2).

Kaliella micracyna p. 117 pl. iv f. 10 a, b; *K. muongomensis* p. 117 pl. iv f. 6a, b, 7; *K. eurhabdota* p. 118, pl. iv, f. 9a, b, c, d; spp. nov. Indo-China, E. Saurin J. Conchyliol. Paris 93 4 1953.

Sitala tricincta sp. nov. Indo-China, E. Saurin J. Conchyliol. Paris 93 4 1953 p. 118 pl. iv f. 8a, b.

Xesta cincta (Lea) and its position, H. A. Rehder.

BULIMULACEA

Apertaxis subgen. nov. of *Coelostemma* subgenotype *Coelostemma amplaxias* sp. nov. Coahuila, N. Mexico, H. A. Pilsbry Proc. Acad. nat. Sci. Philad. 105 1953 p. 159 pl. 3 f. 3-3b.

Austropyrgus niger from Tasmania fig., D. F. McMichael.

Bostryx (Geopyrgus) turritus tamboensis subsp. nov. Peru, A. Zilch Arch. f. Mollusk. 82 1/3 1953.

Bothryembryon multispirus sp. nov. 20 m. W. of Cocklebiddy waterhole, W. Australia, J. H. Macpherson Mem. nat. Mus. Melb. No. 17 1951 p. 30 text-fig.

Bulimus (Rabdotus) novoleonis sp. nov. Cerro Potosi near Galeana at about 10,000 ft. State of Nuevo Leon, Mexico, H. A. Pilsbry *Nautilus* Philad. 67 2 1953 46 pl. 5 f. 6.

Cerion nipense sp. nov. p. 309 pl. 35 f. 11; *C. disforme nodali* subsp. nov. "Clench & Aguayo," C. G. Aguayo Mem. Soc. cubana Hist. nat. 21 3 1953.—*C. salvatori striatissimum* p. 274 pl. 31 f. 8; *C. marielinum constrictum* p. 275 pl. 31 f. 11; subsp. nov. Baraçao Habana, Aguayo & Jaume Mem. Soc. cubana Hist. nat. 21 3 1953.—*C. circumscriptum romanoensis cuspidata* forma nov. = *C. mumia gigantea* Roig 1951 non Maynard 1894, Aguayo & Roig Mem. Soc. cubana Hist. nat. 21 3 1953 p. 290.—*C. pseudocyclostomum* p. 289 pl. 32 f. 13; *C. chaparra* p. 292 pl. 32 f. 19; spp. nov. Cuba, Aguayo & Roig Mem. Soc. cubana Hist. nat. 21 3 1953.

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pl. 1 f. 1-6, Ramon peninsula, Antilla; *C. humberti* "subsp. nov." p. 4 pl. 1 f. 16-18 Bahia de Banes; *C. geophilus* sp. nov. p. 5 pl. 1 f. 7-12 Punta de Piedra, Banes; *C. josephi* sp. nov. p. 6 pl. 1 f. 23-25, Gibara; *C. banesense* sp. nov. p. 7 pl. 1 f. 13-15 Banes; *C. hessei* sp. nov. p. 8 pl. 1 f. 19-22 Guarda la Vaca Banes: North coast of Eastern Cuba, Clench & Aguayo Torreia No. 14 1949.—*C. tridentatum rocae* p. 2 f. 2, *C. peracutum jaumei* p. 2 f. 3, *C. vulneratum feriae* p. 3 f. 6, subsp. nov. *C. sanchezi* sp. nov. p. 3 f. 4, 5, Cuban Cerion, Clench & Aguayo Torreia No. 18 1953.—*C. mumiola guillermi* p. 40 pl. 5 f. 2; *C. ceiba ludovii* p. 41 pl. 5 f. 4; *C. ceiba valdesi* p. 43 pl. 5 f. 5; subsp. nov. Cuba, A. de la Torre Rev. Soc. malac. Habana 9 2 1954.

Coelostemma saltillensis p. 157 pl. 5 f. 5-5c: Coahuila; *C. chilpaicingensis* p. 158 pl. 5 f. 2-3a Guerrero; *C. lissocentrum* p. 158 pl. 8 f. 5-5b Nuevo Leon; *C. hazelae* p. 159 pl. 5 f. 4 Guerrero; *C. amplaxis* p. 159 pl. 3 f. 3, 3b Coahuila; spp. nov. Northern Mexico, H. A. Pilsbry Proc. Acad. nat. Sci. Philad. 105 1953.

Drymaeus (Orodrymaeus) silvanus sp. nov. Peru, A. Zilch Arch. f. Mollusk. 82 1/3 1953 p. 56 pl. 14 f. 5.

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Holospira (Prionoloplax) odontoplax Coahuila p. 141 pl. 3 f. 2; *H. (Holospira) temeroso* Zacatecas p. 141 pl. 4 f. 5, 5a; *H. catorceana* San Luis Potosí p. 142 pl. 8 f. 2-2b; *H. maxwelli* Vera Cruz p. 143 pl. 9 f. 4; *H. stenopylis* San Luis Potosí p. 146 pl. 8 f. 3-3b; *H. cyclostoma* Sonora p. 148 pl. 8 f. 1-1b: spp. nov.; *Holospira pedroana laevissima* San Luis Potosí, subsp. nov. p. 145 pl. 7 f. 4-4d; New Urocotidae from Northern Mexico, H. A. Pilsbry Proc. Acad. nat. Sci. Philad. 105 1953.—*Holospira (Bostrichocentrum) anomala*, sp. nov. Puebla p. 150 pl. 8 f. 6, 6a; *H. (Allocoryphe) remondii laevior* p. 153 pl. 10 f. 2; *H. (A.) remondii yaquensis* p. 154 pl. 10 f. 4-5; *H. (A.) remondii fortescostata* p. 154 pl. 9 f. 5, 5a; subsp. nov. Sonora; *H. (A.) dentaxis* sp. nov. Sonora p. 154 pl. 9 f. 3, 3a; *Holospira dentaxis lamellaxis* p. 155 pl. 9 f. 6; *H. dentaxis*

striatella p. 155 pl. 10 f. 3; *H. dentaxis potamia* p. 156 pl. 9 f. 2; subsp. nov. Northern Mexican Urocotidae, H. A. Pilsbry Proc. Acad. nat. Sci. Philad. 105 1953.

Liguus fasciatus migratus forma nov. p. 221, *L. f. salvatoris* p. 224; *L. f. aedilis* p. 227: subsp. nov., A. de la Torre Mem. Soc. cubana Hist. nat. 21 2 1952.—*L. fasciatus* around Miami, Florida, and vanishing and extinct colonies, F. N. Young.—*L. fasciatus* figs., J. W. Lippincott.

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Prionoloplax subgen. nov. of *Holospira* subgenotype *H. (Holospira) odontoplax* sp. nov., H. A. Pilsbry Proc. Acad. nat. Sci. Philad. 105 1953 p. 140.

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Thaumastus (Quechua) taurisensis p. 52 pl. 14 f. 2; *T. (Scholvienia) koepckeae* p. 53 pl. 14 f. 3 text-fig. 7-9; spp. nov. Peru, A. Zilch Arch. f. Mollusk. 82 1/3 1953.

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Ambigua fuscolabiata pollinensis subsp. nov. pp. 1, 6 pl. 1 f. 1-3 Mt. Pollino; *Ambigua fuscolabiata prausii* subsp. nov. pp. 1, 14 pl. 1 f. 19-21 environs of Cava dei Tirreni; and their systematic position, G. Bacci Annu. Inst. Zool. Univ. Napoli 3 No. 9 1951.

Amphidromus glaucolarynx in Siam, F. Haas (2); *Amphidromus* in the Senckenberg Museum, A. Zilch (3).

Arianta arbustorum, H. Eichardt.

Ashmunella lenticula sp. nov. Arizona, W. O. Gregg Bull. S. Calif. Acad. Sci. 52 2 1953 p. 74 pl. 14 lower fig.—*A. rhyssa edentata* infected by Nematodes, a study of the life cycle of the parasite *Cosmocercoides*, R. E. Ogren.

Bradybaena similaris stimsoni Pfr. and *B. (Aruste) sieboldiana* Pfr. and possible photoperiodic effects on annual sexual phenomena, Mori & Matutani.

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Campylaea capeki minor forma nov. p. 299 fig. 3, J. Petrbok (2).

Cepaea nemoralis (L.), visual selection by tone, pl. 12, A. J. Cain.—*C. hortensis* in Northern Norway, H. Rost.—*C. vindabonensis*, *sylvatica*, *hortensis* and *nemoralis* polymorphism, graphs, F. A. Schilder.—*C. nemoralis interrupta* Moq.—Tand. variation, F. A. & M. Schilder (1).—*C. nemoralis*—band evolution, F. A. & M. Schilder (2).—*C. nemoralis* and *C. hortensis*, Schnetter & Sedlmair.

Cepolis maynardi sexological studies figs., G. R. Webb (2).

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†*Amusium* p. iii, *Amussium* p. 73 (*Propeamussium*) *kusiroense* sp. nov. Oligocene Japan, **H. Takeda** Coal Geol.

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†*Lima tricincta* sp. nov. Eocene, Ocala limestone U.S.A., **G. D. Harris** Bull. Amer. Paleont. 33 138 1951 p. 11 pl. 5 f. 6.

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†*Anthracosiidae*—relative growth of shells, R. M. C. Eagar (1).

†*Carbonicola fallax* Wright, *C. protea* Wright, *c. exorrecta* Eagar, *C. discus* Eagar, *C. crispa* Eagar, variation from normal forms, figs., R. M. C. Eagar (1).

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Hamacuna radiata sp. nov. 14 fms. off Long Reef, N.S.W., C. F. Laseron Rec. Aust. Mus. 23 2 1953 p. 36 f. 6, 6a.

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Volupicuna novacambrica sp. nov. 6-9 fms. Sow and Pig Reef, Pt. Jackson, N.S.W., C. F. Laseron Rec. Aust. Mus. 23 2 1953 p. 35 f. 4, 4a.

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Micropolia gen. nov. Condylocardiidae type *Micropolia typica* sp. nov. 30-35 fm. off Crookhaven p. 48 f. 33-33b: *M. jacksonensis* p. 48 6-9 fm. Sow and Pig Reef, Pt. Jackson f. 34-34b: *M. depressa* 6-9 fm. Sow and Pig Reef p. 48 f. 35-35b: *M. ovalis* 30-35 fms. off Crookhaven p. 49 f. 36-36b: *M. concentrica* mussel beds North Harbour, Port Jackson p. 49 f. 37-37b: *M. profundis* 30-35 fms. off Crookhaven p. 49 f. 38-38b: spp. nov. N.S.W., C. F. Laseron Rec. Aust. Mus. 23 2 1953.

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Radiocondyla jacksonensis 6-9 fms. Sow and Pig Reef, Pt. Jackson p. 42 f. 19, 19a: *R. ampla* 14 fms. off Long Reef p. 42 f. 22: *R. rotunda* 30-35 fms. off Crookhaven p. 42 f. 9: spp. nov. N.S.W., C. F. Laseron Rec. Aust. Mus. 53 2 1953.

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Corbiculidae of Java figs., W. S. S. v. B. Jutting (2).

• *Cyrenoida rhodopyga* Martens figs., A. Chavan (3).

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5, 6, pl. xii f. 3; spp. nov. Oligocene, Poronai, Japan, H. Takeda Coal Geol. Studies No. 3, Geol. Sec. Hokkaido Assoc. Coal Mining Technology 1953.

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toria* var. nov. *G. rotundus kalikaformis*
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